



**U.S. DEPARTMENT OF HEALTH AND HUMAN SERVICES**  
Office of the Assistant Secretary for Planning and Evaluation

## Report to Congress:

# Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs

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A Report Required by the Improving Medicare Post-Acute Care  
Transformation (IMPACT) Act of 2014

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# Table of Contents

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Table of Contents .....	2
Acknowledgements: .....	6
Executive Summary .....	7
I. Background .....	7
II. Definitions and Scope .....	7
III. Findings .....	8
IV. Strategies and Considerations .....	12
V. Conclusions .....	18
VI. Next Steps .....	18
VII. References .....	18
SECTION 1: Introduction, Background, Methods, and Best Practices .....	20
CHAPTER 1: Introduction .....	21
I. Legislative Charge to the Secretary of the Department of Health and Human Services .....	21
II. Background: Paradigm Shifts in Medicare Payment Policy and the Move to Delivery System Reform .....	21
III. Socioeconomic Status, Social Risk Factors, and Medicare Payment Policy .....	24
IV. Structure of This Report .....	34
V. References .....	34
CHAPTER 2: Social Risk Factors .....	36
I. Defining Socioeconomic Status and Social Risk Factors .....	36
II. Research on Social and Related Risk Factors Included in Study A and Health Outcomes .....	38
III. Social and Related Risk Factors Included in this Study .....	39
IV. References .....	49
CHAPTER 3: Statistical Methods .....	55
I. Study Overview and Research Questions .....	55
II. Statistical Approach, by Research Question .....	56
III. References .....	59
CHAPTER 4: Best Practices for Achieving Good Outcomes in Socially At-Risk Beneficiaries .....	60

I.	Variability of Performance for Providers Serving Socially At-Risk Beneficiaries.....	60
II.	National Academies of Sciences, Engineering, and Medicine Report on Best Practices.....	61
III.	Policy Strategies to Enable Best Practices to Caring for Socially At-Risk Beneficiaries.....	64
IV.	References .....	65
SECTION 2: Hospital Value-Based Purchasing Programs .....		66
CHAPTER 5: The Hospital Readmissions Reduction Program .....		68
I.	Introduction .....	70
II.	Beneficiary and Provider Characteristics .....	72
III.	Beneficiary Social Risk Factors and Readmission Rates.....	74
IV.	Provider Social Risk Factors and Readmission Rates .....	76
V.	Social Risk and Performance Under the Hospital Readmissions Reduction Program .....	78
VI.	Policy Options .....	79
VII.	Key Findings, Strategies, and Considerations .....	91
VIII.	References .....	96
CHAPTER 6: The Hospital-Acquired Conditions Reduction Program .....		98
I.	Introduction .....	100
II.	Beneficiary and Provider Characteristics .....	106
III.	Beneficiary Social Risk and Performance on the HACRP Patient Safety Metrics.....	109
IV.	Hospital Levels of Social Risk and Performance on the HACRP Patient Safety Metrics.....	111
V.	Impact of the HACRP on Safety-Net Hospitals.....	114
VI.	Policy Options .....	116
VII.	Key Findings, Strategies, and Considerations .....	132
VIII.	References .....	139
CHAPTER 7: The Hospital Value-Based Purchasing Program .....		141
I.	Introduction .....	143
II.	Beneficiary and Provider Characteristics .....	146
III.	Social Risk and Performance on the Medicare Spending per Beneficiary Efficiency Measure	148
IV.	Hospital Social Risk Makeup and MSPB Ratios .....	153
V.	Beneficiaries' and Hospitals' Social Risk and Mortality Measures.....	154
V.	Hospital Social Risk and Mortality Measures.....	156
VI.	Social Risk and Performance Under the HVBP.....	157
VII.	Policy Options .....	162

VIII.	Key Findings, Strategies, and Considerations .....	166
IX.	References .....	173
SECTION 3: Medicare Advantage, the Medicare Shared Savings Program, and the Physician Value-Based Payment Modifier .....		177
CHAPTER 8: Medicare Advantage .....		179
I.	Introduction .....	181
II.	Beneficiary and Provider Characteristics .....	184
III.	Beneficiary Social Risk Factors and Performance on MA Quality Metrics.....	186
IV.	Contract Social Risk Makeup and Performance on MA Quality Metrics .....	191
V.	Social Risk and Performance Under the Star Rating Program .....	195
VI.	Policy Options .....	198
VII.	Key Findings, Strategies, and Considerations .....	213
VIII.	References .....	220
CHAPTER 9: The Medicare Shared Savings Program .....		222
I.	Introduction .....	224
II.	Beneficiary and Provider Characteristics .....	228
III.	Beneficiary Social Risk Factors and Performance in the Medicare Shared Savings Program...	232
IV.	ACO Social Risk Composition and Performance in the Medicare Shared Savings Program .....	234
V.	ACO Social Risk and Performance on Quality and Savings in the Medicare Shared Savings Program	237
VI.	Policy Options for the Medicare Shared Savings Program .....	243
VII.	Key Findings, Strategies, and Considerations .....	252
VIII.	References .....	258
CHAPTER 10: The Physician Value-Based Payment Modifier Program.....		260
I.	Introduction .....	263
II.	Beneficiary and Practice Characteristics .....	265
III.	Beneficiary Social and Medical Risk Factors and VM Performance Measures .....	270
IV.	Practice Social Risk and VM Performance .....	275
V.	Impact of Physician VM Program on Providers Serving Populations with High Social or Medical Risk	278
VI.	Policy Options for Modifying the Current Physician VM Program .....	282
VII.	Key Findings, Strategies, and Considerations .....	292



VIII. References .....	300
SECTION 4: Dialysis Facility and Post-Acute Care Value-Based Purchasing Models.....	302
CHAPTER 11: The End-Stage Renal Disease Quality Incentive Program .....	303
I. Introduction .....	305
II. Beneficiary and Facility Characteristics.....	307
III. Beneficiary social risk and Outcomes under the ESRD QIP.....	310
IV. Facility Social Risk and Outcomes under the ESRD QIP .....	312
V. Performance on the ESRD QIP for Facilities with High Levels of Social Risk Factors .....	313
VI. Performance on Measures in Star Ratings by Facility Social Risk .....	317
VII. Key Findings, Strategies, and Considerations .....	318
VII. References .....	324
CHAPTER 12: Skilled Nursing Facilities.....	326
I. Introduction .....	328
II. Beneficiary and Provider Characteristics .....	330
III. Beneficiary Social Risk Factors and Performance on the 30-Day Readmission Measure .....	331
IV. SNF Social Risk Levels and Readmission Rates.....	333
V. SNF-Level Performance Analyses.....	334
VI. Policy Options .....	336
VII. Key Findings, Strategies, and Considerations .....	336
VIII. References .....	341
CHAPTER 13: Home Health Agencies.....	343
I. Introduction .....	345
II. Beneficiary and Provider Characteristics .....	347
III. Beneficiary Social Risk Factors, Re-Hospitalization, and ED Use Rates.....	349
IV. HHA Social Risk Levels, Re-Hospitalization, and ED Use Rates .....	352
V. HHA-Level Performance Analyses.....	355
VI. Policy Options .....	357
VII. Key Findings, Strategies, and Considerations .....	358
VIII. References .....	362
CHAPTER 14: Summary of Findings, Strategies, and Considerations; Conclusions; and Next Steps .....	363
I. Summary of Findings.....	363
II. Strategies and Considerations .....	368

III. Conclusions ..... 374

IV. Next Steps ..... 374

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# Executive Summary

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## I. Background

There is growing recognition that social risk factors – such as income, education, race and ethnicity, employment, community resources, and social support – play a major role in health.<sup>1-3</sup> Despite ongoing efforts, significant gaps remain in health and in life expectancy based on income, race, ethnicity, and community environment.<sup>4-7</sup>

At the same time, the health care system is increasingly moving towards higher levels of provider accountability for the quality, outcomes, and costs of care. Value-based or alternative payment models, which tie payment to the quality and efficiency of health care delivered, are in place in nearly all Medicare settings, including in hospitals, outpatient settings, and post-acute facilities.

These two issues are intersecting. If beneficiaries with social risk factors have worse health outcomes because the providers they see provide low-quality care, value-based purchasing could be a powerful tool to drive improvements in care and reduce health disparities. However, if beneficiaries with social risk factors have worse health outcomes because of elements beyond the quality of care provided, such as the social risk factors themselves, value-based payment models could do just the opposite. If providers have limited ability to influence health outcomes for beneficiaries with social risk factors, they may become reluctant to care for beneficiaries with social risk factors, out of fear of incurring penalties due to factors they have limited ability to influence.

In many ways, beneficiaries with social risk factors may benefit the most from value-based purchasing programs and other delivery system reform efforts, since improved care coordination and provider cooperation will be of the highest utility to the most complex beneficiaries with the most care needs. Therefore, in order to properly align payments and ensure value-based purchasing programs achieve their intended goals, the relationships between social risk and performance on these programs need to be better understood. This report, mandated by the Improving Medicare Post-Acute Care Transformation Act of 2014 or the IMPACT Act (P.L. 113-185),<sup>8</sup> shares empirical analysis using existing Medicare data to help address these questions and provides considerations for policymakers while additional work using other data sources continues.

## II. Definitions and Scope

The social risk factors examined in this report were dual enrollment in Medicare and Medicaid as a marker for low income, residence in a low-income area, Black race, Hispanic ethnicity, and residence in a rural area. Disability was also examined as it is related to many social risk factors, available in claims data, and already used in some Medicare payment calculations. Note that there are many other social risk factors that were not examined in this report due to data limitations; many of these will be addressed in Study B, also mandated under the IMPACT Act. Providers (here, hospitals, health plans,

physicians, dialysis facilities, skilled nursing facilities, and home health agencies) in the top quintile of the proportion of their beneficiaries with each social risk factor (for example, the physicians with the highest proportion of dually-enrolled beneficiaries) were considered “safety-net” providers for the purposes of this Report.

Medicare payment programs were selected for analysis if they were currently operational or defined in statute, and if they incorporated quality and/or efficiency metrics into payment (Table 1):

**Table 1: Medicare Payment Programs Included in this report**

<b>Program</b>
1) Hospital Readmissions Reduction Program
2) Hospital Value-Based Purchasing Program
3) Hospital Acquired Condition Reduction Program
4) Medicare Advantage (Part C) Quality Star Rating Program*
5) Medicare Shared Savings Program
6) Physician Value-based payment modifier Program†
7) End-Stage Renal Disease Quality Incentive Program
8) Skilled Nursing Facility Value-Based Purchasing Program‡
9) Home Health Value-Based Purchasing Program‡
*Includes Part D metrics where applicable. †Note that these program sunsets, and is replaced by the Merit-Based Incentive Payment System (MIPS) in 2019. ‡The SNF VBP and HHVBP programs are too new to have program-level data yet available for analysis; thus for the purpose of this report only certain measures that may be used in these two programs were analyzed.

### III. Findings

**A. FINDING 1: Beneficiaries with social risk factors had worse outcomes on many quality measures, regardless of the providers they saw, and dual enrollment status was the most powerful predictor of poor outcomes.**

Beneficiaries with social risk factors had poorer outcomes on many quality measures, including process measures (e.g., cancer screening), clinical outcome measures (e.g., diabetes control, readmissions), safety (e.g., infection rates), and patient experience measures (e.g., communication from doctors and nurses), as well as higher resource use (e.g., higher spending per hospital admission episode). This was true even when comparing beneficiaries at the same hospital, health plan, ACO, physician group, or facility. Dual enrollment (enrollment in both Medicare and Medicaid) was typically the most powerful predictor of poor performance among those social risk factors examined. For the most part, these findings persisted after risk adjustment, across care settings, measure types, and programs, and were moderate in size.

**B. FINDING 2: Providers that disproportionately served beneficiaries with social risk factors tended to have worse performance on quality measures, even after accounting for their beneficiary mix. Under all five value-based purchasing programs in which penalties are currently assessed, these**

**providers experienced somewhat higher penalties than did providers serving fewer beneficiaries with social risk factors.**

In every care setting examined, providers that disproportionately cared for beneficiaries with social risk factors tended to perform worse than their peers on quality measures. Some of these differences were driven by beneficiary mix, but some of the difference persisted even after adjusting for beneficiary characteristics. As a result, safety-net providers were more likely to face financial penalties across all five operational Medicare value-based purchasing programs in which penalties are assessed, including programs in the hospital, physician group, and dialysis facility settings. They were also less likely to receive bonuses in Medicare Advantage. The single exception was that ACOs with a high proportion of dually-enrolled beneficiaries were more likely to share in savings under the Medicare Shared Savings Program, despite slightly worse quality scores.

However, in every setting, be it hospital, health plan, ACO, physician group, or facility, there were some providers that served a high proportion of beneficiaries with social risk factors who achieved high levels of performance. This suggests that high performance is feasible, with the right strategies and supports.

**C. Interpretation of Findings**

The first question motivating this research was “Do beneficiaries with social risk factors have worse outcomes due to their social risk profile, or because of the providers they see?” The answer is *both* – dual enrollment status is independently associated with worse outcomes, and dually enrolled beneficiaries are more likely to see lower-quality providers. The second question was “Do providers that serve beneficiaries with social risk factors perform worse due to the high proportion of beneficiaries with social risk factors, or do they provide lower-quality care overall?” The answer, again, is *both*. Providers serving high proportions of beneficiaries with social risk factors tended to perform worse in part due to the patient population, and in part due to poor performance overall.

However, these analyses cannot determine why such patterns exist. Beneficiaries with social risk factors may have poorer outcomes due to a host of factors, including higher levels of medical risk, worse living environments, greater challenges in adherence and lifestyle, and/or bias or discrimination.

Some of these factors are beyond providers’ control, such as higher levels of medical risk and worse living environments. Some of these factors are probably under some influence from clinicians, such as adherence and lifestyle choices. And some of these factors are entirely under clinicians’ control, including bias and discrimination.

Providers serving these beneficiaries may have poorer performance due to a similarly long list of factors, including fewer resources, more challenging clinical workloads, lower levels of community support, or worse quality of care. Again, some of these factors are under providers’ control, and some are not.

Many of these factors, for both beneficiaries and providers, are not easily measured with current data. Yet understanding the “whys” is essential to finding lasting and meaningful solutions. There is clearly a need for more research in this area.

**D. Potential Solutions**

A number of potential solutions for if and how to account for social risk in Medicare programs have been proposed. It is important to note that quality measures are used in two ways for these programs: 1) reporting to providers and the public; and 2) to determine payment adjustments such as bonuses and penalties. Thus, potential solutions can be relevant to adjusting the measures for reporting, adjusting the measures for the purpose of determining payments, or directly adjusting the payment methodologies without adjusting the measures themselves.

**i. Adjusting quality and resource use measures**

Quality and resource use measures can be and are used for multiple purposes. Some measures are used purely for quality improvement, typically within a health care system or clinical practice to identify and track specific clinical areas for improvement. Many of these measures are processes of care that are based upon steps within clinical practice guidelines, such as whether or not a Hemoglobin A1C was ordered for diabetic patients. Generally, measures used for this purpose are not risk adjusted at all, even for clinical co-morbidities, as providers are most interested in using these measures to track performance within their organization, and not for comparative performance purposes.

Most measures used within the Medicare programs are used for public reporting and accountability, or value-based purchasing, although they may also be valuable for providers to track for quality improvement as well. These measures are typically used to profile providers against one another, usually as a requirement of the statute authorizing the quality or value-based purchasing program. In order to “level the playing field,” these quality and resource use measures may be adjusted for a variety of risk factors, most commonly age and clinical co-morbidities. The goal of risk adjustment is to fairly compare providers to one another on patient outcomes, such that the main differences in performance are related to the quality of care provided, rather than to patient factors over which providers have no control, such as clinical conditions. It is measures used for public reporting and payment that are the focus of this report.

Public reporting of quality measures serves important informational purposes. For one, it allows beneficiaries to make informed choices of their providers and health plans. Second, it provides useful information to providers and plans as they monitor their performance and implement programs to improve quality. Finally, it provides Medicare and other purchasers with information to monitor programs and guide value-based purchasing decisions. Whether these measures should be adjusted for social risk factors prior to reporting has been the subject of debate.

Some have argued that measures used for public reporting and accountability should be adjusted for social risk factors, in order to “level the playing field.” Advocates of this approach argue that adjusting measures for social risk factors recognizes the greater challenges that may be faced in achieving high performance for beneficiaries with social risk factors, and may reduce the likelihood that concerns about performance could lead to worse access to care for these groups by penalizing providers who serve them. They also argue that failing to adjust for differences in the populations served by different providers may lead to inaccurate representations of the quality of care a provider is furnishing to

patients. Advocates of this view argue that, without adjustment, some of the differences in reported performance reflect differences in the populations providers serve, rather than the performance of the providers themselves.

Supporters of adjusting measures for social risk factors note that there may be situations in which measure performance is so closely tied to social risk and its consequences, in ways that are truly beyond providers' control, that achieving policy goals necessitates adjustment. For example, there is significant evidence that dually-enrolled beneficiaries, on average, are more medically complex and have higher healthcare needs. Therefore, poor performance on measures of care utilization may reflect patient need or complexity rather than poor quality of care, and failing to adjust may penalize providers for providing additional needed services to these groups. Currently, some care utilization measures, as well as the self-reported health status measures used in the Medicare Advantage program and the patient experience measures used in many current Medicare payment programs, are adjusted for social risk.

Others, however, have argued that adjustment for social risk is not appropriate. First, they argue that adjusting measures for social factors risks masking disparities in the quality of care provided, thereby significantly reducing the long-term ability to identify and reduce them. Second, at least to the degree that differences in quality are related to poor performance, bias, or discrimination, they argue that directly adjusting measures could excuse the delivery of worse care to beneficiaries with social risk factors. Third, opponents of adjusting for social risk suggest that doing so may reduce incentives for providers to participate in alternative care delivery models, and therefore providers may miss opportunities to provide better-coordinated and tailored care to vulnerable beneficiaries. Finally, they argue that adjusting the measures may have a negative impact on transparency for consumers and others.

Opponents of adjusting measures also argue that broad adjustment is inappropriate because there are many quality measures for which there is no plausible role for adjustment – pure process measures such as giving aspirin for a heart attack, for example, should generally not be adjusted for social risk since they are entirely under providers' control, and should be done regardless of a beneficiary's social risk profile. Under this theory, there is no reason that social risk should be directly associated with performance on process measures, and poor performance in these scenarios is more likely reflective of poor quality than of need or complexity. Currently, the majority of process and clinical outcome measures used in Medicare payment programs are not adjusted for social risk.

## **ii. Adjusting payments**

Whether a decision is made to adjust the measures themselves for reporting purposes, a separate decision is possible with regard to adjusting payment (penalties and bonuses) for social risk. One option is to base the penalty/bonus calculation on adjusted measures; this has some of the pros and cons above, though does not negatively impact transparency since the adjustment is applied after reporting.

However, another option for accounting for social risk in Medicare's value-based purchasing programs lies in not adjusting the measures themselves, but instead in altering the mechanism by which performance is translated to payment. Such alterations could be used to give additional "credit" to



providers that serve a high proportion of beneficiaries with social risk factors. If these payment adjustments were linked to improvement or achievement in performance for beneficiaries with social risk factors, they could potentially provide additional incentives to improve care and outcomes for these groups, and provide financial support while preserving accountability.

Such an approach preserves the transparency of the measures, but still recognizes the challenges inherent in achieving high quality and good outcomes for beneficiaries with social risk factors. It might also offset concerns that, in the absence of some type of accounting for social risk, value-based purchasing models could result in providers becoming reluctant to care for beneficiaries with social risk factors out of fear of incurring penalties due to elements they have limited ability to influence.

### **iii. Addressing the Underlying Issues**

Finally, some point out that neither adjusting the measures, nor altering value-based payments, addresses the fundamental problems underlying the pervasive differences in performance across measures and programs. Social determinants of health are powerful, and to make things better for beneficiaries with social risk factors and the providers who serve them, these factors need to be explicitly measured and their impact tracked, perhaps via the use of new measures that specifically capture providers' performance for beneficiaries with social risk factors. Such new measures could include calculating performance on current measures for subgroups of beneficiaries with social risk factors, or specific measures of health equity comparing performance between beneficiaries with social risk factors and other beneficiaries.

Once measured and recognized, these issues could be addressed with financial and technical assistance. Such assistance should be tailored to recognize the unique characteristics of beneficiaries with social risk factors and the providers that disproportionately serve them, and directed toward the goal of achieving highest quality of care for all patients.

## **IV. Strategies and Considerations**

The Department's goal is to develop value-based payment programs under which *all* Medicare beneficiaries receive the highest quality healthcare services. In the context of the findings above, however, it is clear that doing so will require a multipronged approach, as proposed solutions that address only the measures without considering the broader delivery system and policy context are unlikely to mitigate the full implications of the relationship between social risk factors and outcomes. Ideally, value-based purchasing programs can be leveraged to enhance, rather than threaten, access to and provision of high-quality care for beneficiaries with social risk factors.

Therefore, the Department proposes for consideration a three-part strategy (Figure 1):



**Figure 1. Strategy for Accounting for Social Risk in Medicare's Value-Based Purchasing Programs**

First, performance on quality and outcomes should be **measured and reported specifically for beneficiaries with social risk factors**. Doing so would allow policymakers and clinical leaders to identify, track, and address disparities in care.

Second, **high, fair quality standards** should be set for all beneficiaries. Whether the most “fair” standard is one that does or does not adjust for social risk will depend on the type of measure and how the considerations outlined earlier apply to that particular measure. Additionally, all measures should be studied to determine whether accounting for frailty, medical complexity, functional status, or other factors might improve their ability to fairly and accurately assess provider performance.

Meeting quality standards, particularly for outcome measures, may be harder for beneficiaries with social risk factors, who face specific challenges to achieving good health outcomes. Therefore, value-based purchasing programs should:

- a) provide **specific payment adjustments to reward achievement and/or improvement for beneficiaries with social risk factors**, and
- b) where feasible, **provide targeted support** for providers who disproportionately serve them.

First, leveraging the power of value-based purchasing to provide specific payment adjustments to reward providers for successfully achieving high quality and/or good health outcomes in beneficiaries with social risk factors may provide important incentives to focus on these individuals, and help offset any real or perceived disincentives to caring for them.

Second, providing targeted support, for example through quality improvement programs designed specifically for beneficiaries with social risk factors, is also critical to ensuring that all beneficiaries can have the best health outcomes possible. Another key component of support is ensuring that current base payments are adequate to support high-quality care for beneficiaries with social risk factors.

Considerations for how these strategies might be applied to Medicare payment programs are provided below. Note that these are general considerations, and not all apply to each program reviewed.

#### **A. STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

**Consideration 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.**

The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as policymakers and providers seek to reduce disparities and improve care for these groups. However, there are two things that would need to be addressed for this to be feasible: first, data would need to be collected on enough beneficiaries for performance assessment by subgroup; and second, statistical techniques to allow calculation for subgroups would need to be developed.

**Consideration 2: Consider developing and introducing health equity measures or domains into existing payment programs to measure disparities and incent a focus on reducing them.**

Quality measures help providers prioritize areas for particular focus, and specific measures targeting equity within existing value-based purchasing programs can therefore incent a focus on reducing disparities. This could be achieved by adding a health equity measure or domain to existing programs.

**Consideration 3: Prospectively monitor the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors.**

Many of the programs examined in this report are new or in evolution. Prospectively monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change. One example of such prospective study is the section in this report examining the hospital-wide readmission measure, which has been proposed for implementation in the HRRP. Analyses here demonstrate that moving to such a measure, in the absence of other changes to the program, could disproportionately impact the safety net. Similarly, analyses in this report examining future changes to the HACRP demonstrate that these may negatively impact safety-net hospitals. These types of analyses are important for policymakers to consider as Medicare's value-based purchasing programs continue to evolve.

**B. STRATEGY 2: Set High, Fair Quality Standards for All Beneficiaries**

**Consideration 1: Measures should be examined to determine if adjustment for social risk factors is appropriate; this determination will depend on the measure and its empirical relationship to social risk factors.**

There is not an all-encompassing approach to whether or not measures should be adjusted for social risk. These decisions should consider the benefits and concerns of adjustment discussed above. Additionally, empirical evidence on the relationship between the social risk factor and the outcome, including whether there is evidence that need or complexity is driving differences in performance, or if the differences in performance are related to true differences in the quality of care delivered to beneficiaries with social risk factors, should be considered. Such decisions should be continuously evaluated as new data on social risk and better data on medical risk become available and as new measures are introduced into the programs.

**Consideration 2: The measure development community should continue to study program measures to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

Some of the observed relationship between social risk factors and performance on quality measures may be the result of underlying differences in medical complexity, frailty, disability, and/or functional status. For example, dually-enrolled beneficiaries are more likely to have poor functional status, and therefore may be more likely to be readmitted after a hospitalization. However, data on these factors are not broadly available and will require further development. In order for value-based purchasing programs to be as accurate as possible, and to avoid unfairly penalizing providers that serve socially or medically complex beneficiaries, both quality and resource use measures should be continuously improved to account for differences in these and other components of medical risk.

**C. STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

**Consideration 1: Consider creating targeted financial incentives within value-based purchasing programs to reward achievement of high quality and good outcomes, or significant improvement, among beneficiaries with social risk factors.**

Achievement and/or improvement for beneficiaries with social risk factors should be rewarded, and this could be done via payment adjustments within existing value-based purchasing programs to reward providers that do so. Leveraging the power of value-based purchasing to provide specific payment adjustments to reward providers for successfully achieving high quality and/or good health outcomes in beneficiaries with social risk factors may provide important incentives for doing so, and help offset any real or perceived disincentives under value-based purchasing programs to caring for these beneficiaries. Such opportunities would also highlight the need to focus on these groups to improve outcomes.

**Consideration 2: Consider using existing or new quality improvement programs to provide targeted support and technical assistance to providers that serve beneficiaries with social risk factors.**

Improving care delivery by providers serving at-risk populations would serve both to reduce disproportionate penalty burdens on these providers, and more importantly, to improve care for the most socially at-risk Medicare beneficiaries.

**Consideration 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

One promising strategy for identifying and testing innovative strategies that may meet the unique needs of beneficiaries with social risk factors is via demonstrations or models. Examples include the demonstration programs in Medicare Advantage that focus on coordinating benefits between Medicare and Medicaid, and CMMI's Accountable Health Communities model.

**Consideration 4: Consider further research to examine the costs of achieving good outcomes for beneficiaries with social risk factors and to determine whether current payments adequately account for any differences in care needs.**

It might require more resources to achieve good outcomes for beneficiaries with social risk factors, but how much and what type of resources is poorly understood. Future research should determine whether current payments, typically based only on differences in medical risk, adequately account for these differences in care needs. Note that this is a different consideration than additional value-based purchasing adjustments as outlined in Consideration 1 above – this consideration instead refers specifically to whether providers should be paid more to care for beneficiaries with social risk factors via higher base payments, regardless of performance. Disproportionate Share Hospital payments in the hospital setting are one current example of such add-on payments for social risk, and payments to MA contracts to provide care for beneficiaries are also higher for beneficiaries with social risk factors. However, currently, no such provision exists for physicians in the outpatient setting, skilled nursing facilities, dialysis facilities, and other care types. This should be studied.

Table 2 demonstrates how these recommendations and considerations were applied to programs analyzed in this report:

Table 2: Application of Considerations to Programs in this report

Strategies	Considerations	HRRP	HACRP	HVBP	MA Quality Star Program	Medicare Shared Savings Program	Physician VM	ESRD QIP	SNF VBP	HHVBP
Strategy 1: Measure and Report Quality for Beneficiaries with Social Risk Factors	<ul style="list-style-type: none"> <li>Pursue reporting for beneficiaries with social risk factors</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Develop health equity measures</li> </ul>	n/a <sup>1</sup>	n/a <sup>1</sup>	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Prospectively monitor program impact on providers disproportionately serving beneficiaries with social risk factors</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strategy 2: Set High, Fair Quality Standards for All Beneficiaries	<ul style="list-style-type: none"> <li>Consider measures for adjustment on a case-by-case basis</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Improve risk adjustment for health status in program measures</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strategy 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors	<ul style="list-style-type: none"> <li>Provide payment adjustments to reward achievement and/or improvement in beneficiaries with social risk factors</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Use existing or new QI to support providers that serve beneficiaries with social risk factors</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Encourage demos / models focusing on beneficiaries with social risk factors<sup>2</sup></li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	<ul style="list-style-type: none"> <li>Conduct research on the costs of caring for beneficiaries with social risk factors</li> </ul>	✓	✓	✓	✓	✓	✓	✓	✓	✓

n/a=not applicable.

1= Program has a statutorily set list or type of measures; thus this consideration is not applicable

2=Many of these programs do not have demonstration/model authority; the concept would be to design demonstrations or models that addressed key issues salient to beneficiaries with social risk factors, which might influence outcomes under these programs.

HRRP=Hospital Readmissions Reduction Program; HVBP=Hospital Value-Based Purchasing Program; HACRP=Hospital-Acquired Conditions Reduction Program; MA=Medicare Advantage; Medicare Shared Savings Program=Medicare Shared Savings Program; VM=Value-based payment modifier; ESRD QIP=End-Stage Renal Disease Quality Incentive Program; SNF VBP=Skilled Nursing Facility Value-Based Purchasing; HHVBP=Home Health Value-Based Purchasing

## V. Conclusions

Social factors are powerful determinants of health. In Medicare, beneficiaries with social risk factors have worse outcomes on many quality measures, including measures of processes of care, intermediate outcomes, outcomes, safety, and patient/consumer experience, as well as higher costs and resource use. Beneficiaries with social risk factors may have poorer outcomes due to higher levels of medical risk, worse living environments, greater challenges in adherence and lifestyle, and/or bias or discrimination. Providers serving these beneficiaries may have poorer performance due to fewer resources, more challenging clinical workloads, lower levels of community support, or worse quality.

The scope, reach, and financial risk associated with value-based and alternative payment models continue to widen. There are three key strategies that should be considered as Medicare aims to administer fair, balanced programs that promote quality and value, provide incentives to reduce disparities, and avoid inappropriately penalizing providers that serve beneficiaries with social risk factors. **Measuring and reporting quality for beneficiaries with social risk factors**, setting **high, fair quality standards for all beneficiaries**, and the **provision of targeted rewards and supports for better outcomes for beneficiaries with social risk factors**, may help ensure that all Medicare beneficiaries can achieve the best health outcomes possible.

## VI. Next Steps

The findings outlined in this report represent only the beginning of a body of necessary work around fair and accurate quality measurement in the context of Medicare's increasing use of value-based purchasing programs. The IMPACT Act lays out specific additional requirements for Study B, including the examination of specific social risk factors not currently available in Medicare data such as health literacy, limited English proficiency, and Medicare beneficiary activation (the degree to which beneficiaries have the knowledge, skill, and confidence to manage their health and health care). Based on the findings in this report, future work may also include examining the impact of measuring and accounting for functional status or frailty on the relationship between social risk factors and performance, and identifying care innovations associated with the achievement of good health outcomes for beneficiaries with social risk factors.

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## SECTION 1: Introduction, Background, Methods, and Best Practices

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This Section contains four chapters: introduction, background on social risk factors, statistical methods, and a review of best practices for achieving good outcomes in beneficiaries with social risk factors.



# CHAPTER 1: Introduction

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## I. Legislative Charge to the Secretary of the Department of Health and Human Services

Section 2(d) of the Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014 (Appendix Table 1.1) calls for the Secretary of Health and Human Services (HHS), acting through the Assistant Secretary for Planning and Evaluation (ASPE), to conduct a study evaluating the effect of individuals' socioeconomic status (SES) on quality measures and measures of resource use under the Medicare program. The first component of the required work, referred to in this report as Study A, focuses on socioeconomic information currently available in Medicare data, and specifically mandates a focus on Medicaid eligibility and urban versus rural location.<sup>a</sup> The second component, Study B, expands the analyses by using non-Medicare datasets to quantify SES, and will be completed no later than October 2019 as required by the authorizing legislation.<sup>b</sup> Finally, the Act requires qualitative work to inform and contextualize Studies A and B focusing on data availability and use; this component is referred to as Study C.<sup>c</sup>

This Report presents the results of Study A, along with additional analyses of race and ethnicity. Concurrently, the National Academies of Science, Engineering, and Medicine (NASEM) are preparing a set of five reports commissioned by ASPE as part of this work that will be released sequentially over the course of 2016 and early 2017 for Study C (Appendix Table 1.2); these findings are referred to throughout this Report as applicable. Chapter 14 (Summary of Findings, Conclusions, and Next Steps) includes information on future research that will be conducted as part of Study B as well as additional work that could be pursued to further deepen understanding of the relationship between social risk and performance.

## II. Background: Paradigm Shifts in Medicare Payment Policy and the Move to Delivery System Reform

Since its inception in 1965, the federal Medicare program has used standards and oversight to help ensure that Medicare beneficiaries receive high quality health care. For example, in the initial Medicare legislation, “conditions of participation” were established to ensure that providers serving Medicare beneficiaries met basic quality standards. As tools and methods evolved, the Medicare program implemented new programs to monitor quality, first measuring how care is delivered (the *processes* of care), and later, measuring the results (*outcomes*) of that care. Initially, these measures were intended

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<sup>a</sup> Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014, Section 2(d)(1)(A)

<sup>b</sup> Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014, Section 2(d)(1)(B)

<sup>c</sup> Improving Medicare Post-Acute Care Transformation (IMPACT) Act of 2014, Section 2(d)(1)(C)

for use in internal quality improvement efforts, but subsequently Medicare moved to report performance publicly, beginning with managed care plans in 1999.

Since 2005, hospital performance has been reported on the *Hospital Compare* website<sup>1</sup> to inform consumers about health care quality and to promote care improvements. Process measures were the first measures to be publicly reported, focusing on heart attack, heart failure, and pneumonia; outcomes for these conditions were reported starting in 2007. Similar reporting programs have subsequently been developed for nursing homes,<sup>2</sup> dialysis facilities,<sup>3</sup> and physicians.<sup>4</sup>

Despite this increased focus on quality reporting, until recently providers were still paid largely under a volume-based paradigm, that is, they were paid for the number of services provided irrespective of quality or value. With the Affordable Care Act, Medicare's payment paradigms shifted to explicitly link many Medicare payments to the quality and efficiency of health care. For example, Medicare's Hospital Value-Based Purchasing Program (HVBP) that began in 2012 ties a portion of hospitals' fee-for-service Medicare payments for inpatient services to performance on processes, outcomes, efficiency, and patient experience.

Additional value-based purchasing programs are underway or in development in nearly all Medicare settings, including in hospitals, in the ambulatory domain for physicians and dialysis facilities, in the post-acute setting for skilled nursing facilities and home health agencies, and across health care sectors in Medicare Advantage. Payment arrangements broadly referred to as alternative payment models (APMs), such as Accountable Care Organizations (ACOs) and bundled payments, are also gaining prominence within the Medicare payment portfolio. Payment arrangements referred to as APMs vary substantially, and specific definitions may vary by payer, but these types of payment models generally put providers at risk both for the cost of care and the quality of care.

By all indications, this trend away from volume and towards value will continue. In 2015, Sylvia Burwell, the Secretary of HHS, announced the department's goals to have 30% of Medicare payments in APMs by 2016 and 50% by 2018, and to tie 85% of remaining fee-for-service payments to value by 2016 and 90% by 2018.<sup>5</sup> Subsequent announcements have demonstrated that HHS has met this goal for 2016, and is on track to meet or exceed future goals, reflecting the rapid shift in the Medicare program's payment paradigm.

Many of these programs are built around one or more quality and/or resource use measures. Quality and resource use measures can be and are used for multiple purposes. Some measures are used purely for quality improvement, typically within a health care system or clinical practice to identify and track specific clinical areas for improvement. Many of these measures are processes of care that are based upon steps within clinical practice guidelines, such as whether or not a Hemoglobin A1C was ordered for diabetic patients. Generally, measures used for this purpose are not risk adjusted at all, even for clinical co-morbidities, as providers are most interested in using these measures to track performance within their organization, and not for comparative performance purposes.

Most measures used within the Medicare programs are used for public reporting and accountability, or value-based purchasing, although they may also be valuable for providers to track quality improvement. These measures are typically used to profile providers against one another, usually as a requirement of the statute authorizing the quality or value-based purchasing program. In order to “level the playing field,” these quality and resource use measures may be adjusted for a variety of risk factors, most commonly age and clinical co-morbidities. The goal of risk adjustment is to fairly compare providers to one another on patient outcomes, such that the main differences in performance are related to the quality of care provided, rather than to patient factors over which providers have no control, such as clinical conditions.

It is measures used for public reporting and payment that are the topic of this report. However, for the purposes of this report, analyses largely focus on payment – considerations and solutions discussed here are presented in the context of how they would impact payment, rather than whether they should be used for quality reporting. To provide the most comprehensive evaluation possible of the relationship between social risk and performance under Medicare’s value-based purchasing programs, a broad range of programs were examined. Programs were selected for analysis if they were currently operational or defined in statute, and if they incorporated quality and/or efficiency metrics into payments. The programs ultimately included in the report are shown in Table 1.1:

**Table 1.1: Medicare Payment Programs Included in this report**

<b>Program</b>	<b>Metric Types Currently Included in Program</b>
<b>1) Hospital Readmissions Reduction Program</b>	Outcomes of care
<b>2) Hospital Value-Based Purchasing Program</b>	Processes of care, Outcomes of care, Patient safety, Patient experience, Efficiency
<b>3) Hospital Acquired Condition Reduction Program</b>	Patient safety, Outcomes of care
<b>4) Medicare Advantage (Part C) Quality Star Rating Program*</b>	Processes of care, Outcomes of care, Patient experience
<b>5) Medicare Shared Savings Program</b>	Processes of care, Outcomes of care, Patient experience, Costs
<b>6) Physician Value-Based Payment Modifier Program†</b>	Processes of care, Outcomes of care, Patient experience, Efficiency, Costs
<b>7) End-Stage Renal Disease Quality Incentive Program</b>	Processes of care
<b>8) Skilled Nursing Facility Value-Based Purchasing Program‡</b>	Outcomes of care
<b>9) Home Health Value-Based Purchasing Program‡</b>	Outcomes of care, patient experience
*Includes Part D metrics where applicable. †Note that this program sunsets, and is replaced by the Merit-Based Incentive Payment System (MIPS) in 2019. ‡The SNF VBP program is not yet operational at the national level, and HHVBP is too new to have program-level data yet available for analysis; for this Report, only measures from these settings were analyzed.	

Note that throughout this report, the word “providers” is used inclusively, to indicate hospitals, physicians, health plans, dialysis facilities, skilled nursing facilities, and home health agencies.

ASPE worked closely with CMS staff to ensure full understanding of current Medicare measure calculations and payment methodologies, as well as with experts from other parts of the Department,

including the Federal Office of Rural Health Policy in the Health Resources and Services Administration (HRSA), the Centers for Disease Control and Prevention (CDC), and others (Appendix Table 1.3). Technical Expert Panels were also convened for input on the proposed analytic plans for each program and on study findings as they emerged (Appendix Table 1.4).

### **III. Socioeconomic Status, Social Risk Factors, and Medicare Payment Policy**

Given the long list of programs above, it is clear that payment paradigms are shifting across care settings, and will impact a broader and broader set of providers and payments. Such an expansion has, however, led to a number of important concerns being raised. As Medicare payments are increasingly based on performance, concerns have been raised about the fairness and equity of performance assessment for providers that serve beneficiaries who may present unique challenges to achieving good outcomes – particularly those beneficiaries considered to have low socioeconomic status.

#### **A. Defining Socioeconomic Status and Social Risk**

In order to examine issues related to socioeconomic status, one first needs a definition of this concept. Therefore, one of the first steps ASPE took under the IMPACT Act work was to ask the National Academies of Science, Engineering, and Medicine (NASEM) to define and conceptualize socioeconomic status for the purposes of Study A and Study B. The NASEM convened a panel of experts in the field and conducted an extensive literature review. Based on the information collected, their first report concluded that the appropriate framework is that of social risk factors instead of socioeconomic status. Social risk factors include socioeconomic position, race, ethnicity, gender, social context, and community context.<sup>6</sup> These factors are discussed at length in Chapter 2. Consequently, in this report the term “social risk factors” will be used, rather than the term “socioeconomic status” or “sociodemographic status.”

#### **B. The Debate Over Accounting for Social Risk**

There is a great deal of debate regarding whether or not social risk should be accounted for in Medicare’s value-based purchasing programs and alternative payment models. These issues are not purely theoretical. Recent research has suggested that current Medicare hospital-based payment programs such as the Hospital Readmission Reduction Program (HRRP), Hospital Value-Based Purchasing Program (HVBP), and Hospital-Acquired Conditions Reduction Program (HACRP) have been more likely to penalize safety-net hospitals.<sup>7-11</sup> Bills have been proposed in both the U.S. House and Senate to allow the Secretary to alter the HRRP to account for social risk.<sup>12,13</sup> The Medicare Payment Advisory Commission (MedPAC) has also recommended changes to the HRRP based on accounting for socioeconomic factors.<sup>14</sup> Additionally, the National Quality Forum (NQF) recently released a report on this issue,<sup>15</sup> and is currently conducting a trial period in which they have asked measure developers to conduct analyses examining whether measures should be adjusted for sociodemographic status.<sup>16</sup>

##### **i. Adjusting quality and resource use measures**

The first question is whether to adjust the measures themselves. Some have argued that measures used for public reporting and accountability should be adjusted for social risk factors, in order to “level the playing field.” Advocates of this approach argue that adjusting measures for social risk factors

recognizes the greater challenges that may be faced in achieving high performance for beneficiaries with social risk factors, and may reduce the likelihood that concerns about performance could lead to worse access to care for these groups by penalizing providers who serve them. They also argue that failing to adjust for differences in the populations served by different providers may lead to inaccurate representations of the quality of care a provider is furnishing to patients. Advocates of this view argue that, without adjustment, some of the differences in reported performance reflect differences in the populations providers serve, rather than the performance of the providers themselves.

Supporters of adjusting measures for social risk factors note that there may be situations in which measure performance is so closely tied to social risk and its consequences, in ways that are truly beyond providers' control, that achieving policy goals necessitates adjustment. For example, there is significant evidence that dually-enrolled beneficiaries, on average, are more medically complex and have higher healthcare needs. Therefore, poor performance on measures of care utilization may reflect patient need or complexity rather than poor quality of care, and failing to adjust may penalize providers for providing additional needed services to these groups. Currently, some care utilization measures, as well as the self-reported health status measures used in the Medicare Advantage program and the patient experience measures used in many current Medicare payment programs, are adjusted for social risk.

Others, however, have argued that adjustment for social risk is not appropriate. First, they argue that adjusting measures for social factors risks masking disparities in the quality of care provided, thereby significantly reducing the long-term ability to identify and reduce them. Second, at least to the degree that differences in quality are related to poor performance, bias, or discrimination, they argue that directly adjusting measures could excuse the delivery of worse care to beneficiaries with social risk factors. Third, opponents of adjusting for social risk suggest that doing so may reduce incentives for providers to participate in alternative care delivery models, and therefore providers may miss opportunities to provide better-coordinated and tailored care to vulnerable beneficiaries. Finally, they argue that adjusting the measures may have a negative impact on transparency for consumers and others.

Opponents of adjusting measures also argue that broad adjustment is inappropriate because there are many quality measures for which there is no plausible role for adjustment – pure process measures such as giving aspirin for a heart attack, for example, should generally not be adjusted for social risk since they are entirely under providers' control, and should be done regardless of a beneficiary's social risk profile. Under this theory, there is no reason that social risk should be directly associated with performance on process measures, and poor performance in these scenarios is more likely reflective of poor quality than of need or complexity. Currently, the majority of process and clinical outcome measures used in Medicare payment programs are not adjusted for social risk.

One reason the topic remains controversial is that the underlying reasons for these patterns are poorly understood. Research has shown that social risk is strongly related to outcomes; however, research has also demonstrated that providers that disproportionately serve poor and minority beneficiaries may provide lower quality of care (see Chapter 2 for a review of literature in these two areas).

Therefore, three key questions must be answered in order to determine whether social risk factors should be accounted for. 1) Is the social risk factor related to the outcome? 2) If so, is the social risk factor directly related to the outcome, or is it mediated by other factors; and 3) If there are mediating factors, are those factors beyond the control of the provider?

Answering the first question is relatively straightforward, and makes up a large part of the analyses contained in this report. Simple regression analyses can be run to evaluate whether social risk factors and outcomes are related – for example, whether beneficiaries who are dually enrolled in both Medicare and Medicaid, and thus presumably lower-income than their peers, are more likely to be readmitted, or whether rural beneficiaries have a higher risk of mortality than urban ones.

The second and third questions are much more difficult. Prior literature would suggest that the mechanisms linking social risk and poor outcomes are broad, and include individual factors, provider factors, and community factors. Some of these factors are outside providers' control (e.g. higher burden of comorbidities or worse functional status in dually-enrolled beneficiaries versus non-dually-enrolled beneficiaries), some are debatable as to whether they are outside the control of the provider, and may be in some cases but not others (e.g. availability of community resources, adherence to medical regimens), and some are fully under providers' control (e.g. bias or discrimination).

Figure 1.1 illustrates the disparate factors that may contribute to differences associated with various social risk factors, in this case for readmission. Please note the relative size of the boxes presented here are provided for illustrative purposes only:

**Figure 1.1: Theoretical Factors Contributing to Differences Between Risk of Readmission for Beneficiaries With vs. Without Social Risk Factors**

<b>Quality of Care</b>	•Lower quality of care delivered by providers serving beneficiaries with social risk factors
<b>Measured Medical Risk</b>	•Age, comorbidities
<b>Unmeasured Medical Risk</b>	•Frailty, functional status
<b>Environment</b>	•Availability of community services, pollution, safety
<b>Patient behavior</b>	•Ability to adhere to medical regimen, diet, lifestyle
<b>Bias / Discrimination</b>	•Systematic mistreatment due to social risk factors



Therefore, there are a number of factors (presumably including many factors not listed above) that may contribute to differences, some of which are under a provider's control, and some of which are not.

Ideally, analyses would first identify where differences in quality and outcomes exist and then dig into the "why" by examining each underlying factor more deeply. Unfortunately, many of the factors on the list above are not included in claims data, and some are not practically measureable on a large enough scale to be of use. For example, beneficiaries' functional status is only measured in the post-acute setting, and adherence to medical recommendations is not currently measured in any systematic way. Bias is an even more difficult factor to measure. Therefore, the analyses contained in this report cannot sort out each of these components.

Because the individual components cannot be easily teased apart, the issues of whether or not to adjust for social risk, as well as how to do so – are controversial. For example, simply adjusting for dual enrollment status would take all of the above factors into account, when an ideal adjustment would only account for the components known to be outside providers' control. Deciding how to proceed, in the absence of an ideal adjustment, is therefore difficult.

## **ii. Adjusting payments**

Whether a decision is made to adjust the measures themselves for reporting purposes, a separate decision is possible with regard to adjusting payment (penalties and bonuses) for social risk. One option is to base the penalty/bonus calculation on adjusted measures; this has some of the pros and cons above, though does not negatively impact transparency since the adjustment is applied after reporting.

However, another option for accounting for social risk in Medicare's value-based purchasing programs lies in not adjusting the measures themselves, but instead in altering the mechanism by which performance is translated to payment. Such alterations could be used to give additional "credit" to providers that serve a high proportion of beneficiaries with social risk factors. If these payment adjustments were linked to improvement or achievement in performance for beneficiaries with social risk factors, they could potentially provide additional incentives to improve care and outcomes for these groups, and provide financial support while preserving accountability.

Such an approach preserves the transparency of the measures, but still recognizes the challenges inherent in achieving high quality and good outcomes for beneficiaries with social risk factors. It might also offset concerns that in the absence of some type of accounting for social risk, value-based purchasing models could result in providers becoming reluctant to care for beneficiaries with social risk factors, out of fear of incurring penalties due to elements they have limited ability to influence.

## **iii. Addressing the Problem Directly**

Finally, some point out that neither adjusting the measures, nor altering value-based payments, addresses the fundamental problems underlying the pervasive differences in performance across measures and programs. Social determinants of health are powerful, and to make things better for beneficiaries with social risk factors and the providers who serve them, these factors need to be

explicitly measured and their impact tracked, perhaps via the use of new measures that specifically capture providers' performance for beneficiaries with social risk factors. Such new measures could include calculating performance on current measures for subgroups of beneficiaries with social risk factors, or specific measures of health equity comparing performance between beneficiaries with social risk factors and other beneficiaries.

Once measured and recognized, these issues could be addressed with financial and technical assistance. Such assistance should be tailored to recognize the unique characteristics of beneficiaries with social risk factors and the providers that disproportionately serve them, and directed toward the goal of achieving highest quality of care for all patients.

Given the nature of this debate, any HHS decisions regarding whether to account for social risk in Medicare payment programs, and if so, how, may have significant implications for future decisions in this area. Therefore, any such decisions should be made with a consideration of the pros, cons, and alternatives, as well as a consideration of the beneficiary perspective.

### C. Policy Criteria

In order to work through these issues systematically, a set of policy criteria were constructed:

1. *Encourages reduction in disparities in quality and outcomes*  
Reducing disparities is a national and Departmental priority, and therefore an ideal policy has a positive and active impact on reducing disparities in these domains.
2. *Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations*  
An ideal policy works to assure that beneficiaries with social risk factors have access to care, by assuring that providers treating disproportionate shares of beneficiaries with social risk factors are not monetarily disincented from doing so. A potential unintended consequence of the move towards value-based purchasing programs would be to put incentives in place to limit providers' interest in caring for beneficiaries with social risk factors or other groups perceived to be at high risk of poor outcomes or high costs; the ideal policy would dampen these unintended consequences.
3. *Protects providers from unfair financial stress*  
An ideal policy recognizes that financial risk under delivery system reform should be applied as fairly as possible. While financial stress that is the result of poor quality is acceptable – it is, in fact, the mechanism and intent of value-based purchasing programs – financial stress that is not reflective of the quality of care delivered may not be fair, and may threaten the viability or availability of health care for at-risk populations. It would be an unintended consequence of delivery system reform efforts to undermine the financial viability of these providers.
4. *Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control.*



An ideal policy adjusts only for the degree and magnitude of the difference in performance related directly to the social risk factor, and does not adjust for differences more broadly, which may be reflective of poor quality. Further, an ideal policy adjusts only for what is beyond provider control, and avoids adjusting for factors under a provider's control such as bias or discrimination. However, the concept of being "beyond provider control" is a difficult one – is the quality of outpatient care available in a community outside a hospital's control, or can the hospital influence such care? Is the availability of affordable housing, or nutritious food, or safe places to exercise, beyond physicians' control, or can physicians influence these factors? This criterion therefore requires careful consideration and application.

5. *Promotes transparency to facilitate consumer choice*

Consumer choice is an important component of incenting providers to work to provide increasingly high-quality, high-value care. Policies that fail to promote or preserve transparency could negatively impact delivery system reform efforts.

6. *Supports delivery system reform and Alternative Payment Models*

Another important policy goal is to support ongoing efforts at delivery system transformation more broadly. Delivery system reform aims to move beneficiaries and providers into alternative payment/delivery models that focus on person-centered, coordinated and comprehensive care; these models may be particularly beneficial for beneficiaries with social risk factors, who may have complex care needs. Beneficiaries with social risk factors could receive better care in these models, and providers that treat large shares of these beneficiaries could improve their quality by being part of these systems. Thus, each policy alternative should be evaluated against the incentives or disincentives they may create for providers to join alternative payment models.

## D. Policy Options

A set of policy options that can be applied across Medicare payment programs was constructed to evaluate the programs in this Report. They each have pros and cons, and may or may not fully meet the criteria outlined above. The details of implementation vary by program and measure, but a broad overview is provided below:

1. Adjustment for Social Risk Factors

Adjusting for social risk factors refers to adding the risk factor in question directly to the risk-adjustment models for quality and resource use measures, where feasible. This could be done both for public reporting and payment purposes, or only for payment purposes; in this report, the impact of adjustment on payment was the focus on simulations. In some programs (for example, the HRRP, which only includes readmission measures), all measures could be directly adjusted. In others, indirect approaches were needed when the data were not structured to allow direct adjustment.

2. Stratification by Social Risk Factors

Under the stratification or tiering strategy, providers were broken into groups by their proportion of beneficiaries with social risk factors. Provider performance was then re-calculated, such that the benchmarks for achievement were group-specific, and each provider was only being compared to its “peers”—defined as providers that had a similar patient population in terms of beneficiary mix.

### 3. Rewarding Improvement

Under the rewarding improvement strategy, mechanisms were developed to calculate the change in performance over time and apply this change to the programmatic calculation of penalties or bonuses. Again, the strategies differed by program (and some programs already reward improvement), but the overarching goal was to allow providers that demonstrated significant improvement to reduce their penalty or gain an offsetting bonus, even if they had not met performance benchmarks.

### 4. Targeted Payment Adjustments: Additional Payment Adjustments for High Performance in High Social Risk Patients and/or Direct Support for Quality Improvement

This set of policy options was specifically designed to incent high performance for beneficiaries with social risk factors, recognizing improved care and outcomes in these groups as an important goal. Though variable by program, these payment adjustments could, for example, provide a financial incentive if a hospital were able to achieve low readmission rates for its dually-enrolled beneficiaries. Additionally or alternatively, direct support, either financially or in terms of technical assistance, could be targeted to providers serving beneficiaries with social risk factors to improve performance.

It is unlikely that any single policy option could satisfy each of the criteria listed above. Therefore, policymakers will have to contemplate tradeoffs as they consider potential courses of action. One could consider constructing a grid of the criteria and policy options to aid in decision making (Table 1.2):

**Table 1.2: Policy Criteria and Options**

	Direct Adjustment of Measures	Stratification by Social Risk	Rewarding Improvement	Targeted Payment Adjustments
1. Encourages reduction in disparities in quality and outcomes				
2. Protects beneficiaries’ access to care by reducing disincentives to caring for high-risk populations				
3. Protects providers from unfair financial stress				
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control				
5. Promotes transparency to facilitate consumer choice				
6. Supports delivery system reform				

Different individuals may weigh the criteria differently, but stating and evaluating the criteria and considerations allows for the most transparent consideration possible of the many available options.

### E. Strategies and Considerations

The Department's goal is to develop value-based payment programs under which *all* Medicare beneficiaries receive the highest quality healthcare services. In the context of the findings above, however, it is clear that doing so will require a multipronged approach, as proposed solutions that address only the measures without considering the broader delivery system and policy context are unlikely to mitigate the full implications of the relationship between social risk factors and outcomes. Ideally, value-based purchasing programs can be leveraged to enhance, rather than threaten, access to and provision of high-quality care for beneficiaries with social risk factors.

Therefore, the Department proposes for consideration a three-part strategy (Figure 1):

**Figure 1. Strategy for Accounting for Social Risk in Medicare's Value-Based Purchasing Programs**



First, performance on quality and outcomes should be **measured and reported specifically for beneficiaries with social risk factors**. Doing so would allow policymakers and clinical leaders to identify, track, and address disparities in care.

Second, **high, fair quality standards** should be set for all beneficiaries. Whether the most “fair” standard is one that does or does not adjust for social risk will depend on the type of measure and how the considerations outlined earlier apply to that particular measure. Additionally, all measures should be studied to determine whether accounting for frailty, medical complexity, functional status, or other factors might improve their ability to fairly and accurately assess provider performance.

Meeting quality standards, particularly for outcome measures, may be harder for beneficiaries with social risk factors, who face specific challenges to achieving good health outcomes. Therefore, value-based purchasing programs should:

a) provide **specific payment adjustments to reward achievement and/or improvement for beneficiaries with social risk factors**, and

b) where feasible, **provide targeted support** for providers who disproportionately serve them.

First, leveraging the power of value-based purchasing to provide specific payment adjustments to reward providers for successfully achieving high quality and/or good health outcomes in beneficiaries with social risk factors may provide important incentives to focus on these individuals, and help offset any real or perceived disincentives to caring for them.

Second, providing targeted support, for example through quality improvement programs designed specifically for beneficiaries with social risk factors, is also critical to ensuring that all beneficiaries can have the best health outcomes possible. Another key component of support is ensuring that current base payments are adequate to support high-quality care for beneficiaries with social risk factors.

Considerations for how these strategies might be applied to Medicare payment programs are provided below. Note that these are general considerations, and not all apply to each program reviewed.

### **STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

The first step in addressing social risk factors in Medicare is measuring, tracking, and reporting their impact. Reporting performance specifically for beneficiaries with social risk factors is a critical component in illuminating health disparities and placing a priority on reducing them (criterion #1). Failing to measure and report performance for beneficiaries with social risk factors could impede progress toward ensuring Medicare’s value-based purchasing programs have their intended effects and are not associated with unintended consequences. This strategy is currently being explored by the Office of Minority Health at CMS, which recently began posting quality information stratified by race and ethnicity on their website for public viewing. Another important component of measuring and reporting quality for beneficiaries with social risk factors is the development and use of health equity measures or domains to specifically measure disparities in care. Finally, monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change.

**STRATEGY 2: Set High, Fair Quality Standards for All Beneficiaries**

The second strategy is setting a **high, fair standard** for quality and resource use measures. However, there is not an all-encompassing approach to whether or not measures should be adjusted for social risk. These decisions should consider the benefits and concerns of adjustment discussed above. Additionally, empirical evidence on the relationship between the social risk factor and the outcome, including whether there is evidence that need or complexity is driving differences in performance, or if the differences in performance are related to true differences in the quality of care delivered to beneficiaries with social risk factors, should be considered.<sup>17-19 20-22</sup> Such decisions should be continuously evaluated as new data on social risk and better data on medical risk become available and as new measures are introduced into the programs.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

To encourage improvement in care and outcomes for beneficiaries with social risk factors, and to avoid creating disincentives to caring for beneficiaries with social risk factors (criterion #2), high standards and reporting must be coupled with **targeted payment adjustments to reward improvement and/or achievement** in beneficiaries with social risk factors. These interventions could help reduce the disproportionate burden of payment penalties on providers that disproportionately serve beneficiaries with social risk factors by making them eligible for additional adjustments for performance (criterion #3), and even enhance the potential for success in delivery system reform and Alternative Payment Models (criterion #6).

Finally, meeting high quality standards is often more difficult among beneficiaries with social risk factors, and may require **additional support and/or resources**. For example, achieving high cancer screening rates in beneficiaries who lack access to transportation, or achieving adequate control of blood sugars in beneficiaries who have unstable housing, presents challenges beyond those faced in delivering high quality care to beneficiaries who do not have these needs. Community engagement strategies may have a particular role to play here as well. Therefore, specific targeted support for quality improvement should be provided to the providers that disproportionately care for beneficiaries with social risk factors.

This set of strategies –measure and report performance; set high, fair standards; and provide targeted reward and support –are not mutually exclusive – for example, policymakers could choose both to adjust resource use measures for social risk and also to provide additional payment adjustments for high performance for beneficiaries with social risk factors, or to provide targeted quality improvement support. Indeed, a multi-pronged approach employing all three strategies is likely needed to ensure that Medicare’s value-based purchasing programs adequately account for social risk, help drive improvements in care and outcomes for at-risk beneficiaries, and do not cause unintended consequences as they continue to expand.

Considerations regarding how these strategies might be applied within each program can be found in Chapters 5 through 13. Specific considerations vary by program, because each program is structured differently, uses a different combination of metrics that may have different relationships with social risk, and assesses bonuses or penalties differently.

#### IV. Structure of This Report

Following this introductory chapter, there are three more chapters in Section One: Introduction, Background and Methods. Section Two addresses hospital value-based purchasing programs; Section Three addresses the programs that focus at least in part on quality and/or costs in the ambulatory setting; and Section Four focuses on dialysis facility and post-acute value-based purchasing models. Each of the program chapters follows a similar structure, presenting analyses, policy simulations, and strategies and considerations. Section Five (Chapter 14) summarizes findings across all studies and discusses themes and future areas of work. Detailed methodologies for each of the programs analyzed, as well as additional findings not contained in the main body of the report, are presented in companion technical appendices for the program-specific analyses contained in Chapters 5 through 13.

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## CHAPTER 2: Social Risk Factors

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As noted in Chapter 1, prior research has definitively shown that social risk factors are related to a variety of health outcomes across settings, providers, and practices. Though gaps in life expectancy between Black and White individuals have fallen in recent years,<sup>1</sup> gaps are actually widening for income-related disparities<sup>2,3</sup> and for rural-urban disparities.<sup>4</sup> Healthy People 2020 calls attention to all of these disparities as a major national health priority.<sup>5</sup> This chapter provides a brief overview of the research related to the social risk factors included in Study A, including the relationship between these factors and health outcomes and the way in which these variables were collected.

### I. Defining Socioeconomic Status and Social Risk Factors

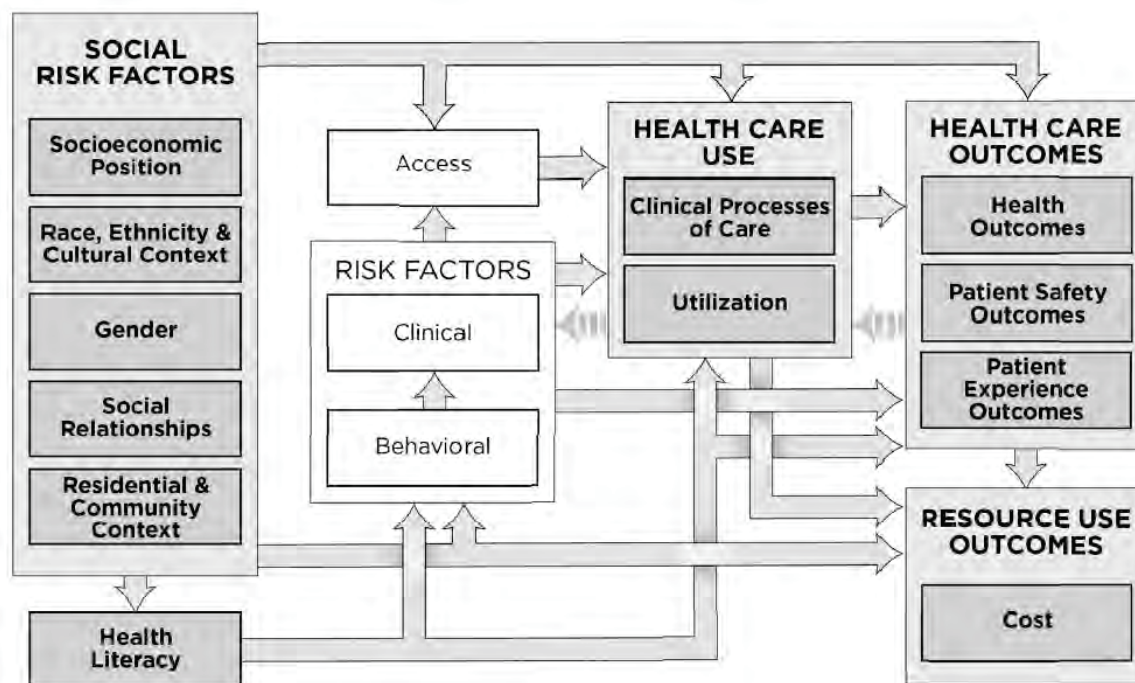
Socioeconomic Status (SES) has been conceptualized in different ways, and can be difficult to measure adequately. Given this complexity, ASPE asked the National Academies of Sciences, Engineering, and Medicine (NASEM) to help create a conceptual framework for this work. Their first report, entitled “Accounting for Social Risk Factors in Medicare Payment: Identifying Social Risk Factors”<sup>6</sup> identified and thoroughly reviewed five key social risk factors and one independent, non-social risk factor that should be considered when addressing the issue of social needs and Medicare payment policy:

1. Socioeconomic Position (SEP), which includes income, insurance, education, and occupation;
2. Race, ethnicity, and cultural context;
3. Gender and sexual orientation;
4. Social relationships, including social support;
5. Residential and community context, including neighborhood deprivation and rurality; and
6. Health literacy (independent risk factor rather than social risk factor)

The Committee noted that it expected the effect of the social risk factors to be similar across Medicare subpopulations, including beneficiaries with disabilities and ESRD, and older adults. These social risk factors are associated with health care use and outcomes through a variety of mechanisms, as shown in the conceptual model below:



**Figure 2.1. National Academies of Sciences, Engineering, and Medicine’s Conceptual Framework of Social Risk Factors for Healthcare Use, Outcomes, and Cost**



Source: National Academies of Sciences, Engineering, and Medicine. Accounting for Social Risk Factors in Medicare Payment: Identifying Social Risk Factors. Washington, DC: National Academies of Sciences, Engineering, and Medicine; 2016.

The NASEM concluded in their report: “Thus, all other things being equal, the performance of a given health care system (in terms of quality, outcomes, and cost) can undoubtedly be affected by the social composition of the population it serves....Health literacy and social risk factors (SEP; race, ethnicity, and cultural context; gender; social relationships; and residential and community context) have been shown to influence health care use, costs, and health care outcomes in Medicare beneficiaries.”<sup>6</sup>

For the purposes of this Report, analyses were limited to those social risk factors for which data were available in current Medicare administrative files. These factors include income, insurance, race, ethnicity, and community factors, including rurality. Data are not currently available across the Medicare population on education, employment, sexual orientation, gender identity, or social relationships. Gender is ubiquitous in risk adjustment for Medicare’s payment programs because it is currently available in claims data, and as such, specific analyses on gender were not conducted. Disability was also considered to be an important related risk factor in this study. Though not a social risk factor per se, it is a key metric of high medical risk available in current Medicare enrollment data and is already used in some Medicare payment programs. It is also closely linked to many social risk factors, as well as to health outcomes.

## II. Research on Social and Related Risk Factors Included in Study A and Health Outcomes

As noted above, prior research has definitively shown that social risk factors are related to a variety of health outcomes, across settings and providers. This chapter provides a brief overview of the research related to the factors included in Study A; for a more thorough review of social risk factors more broadly, please refer to the National Academies of Sciences, Engineering, and Medicine's report "Accounting for Social Risk Factors in Medicare Payment."<sup>6</sup>

### A. Income

A large body of work has shown that income is associated with health care quality and outcomes, as well as life expectancy.<sup>7</sup> Prior studies, many of which used Medicaid enrollment as a proxy for low income, have shown that low-income beneficiaries have higher hospital admission, readmission, and mortality rates for a number of medical and surgical conditions.<sup>8-11</sup> Income is also related to health care quality and outcomes when studied in the outpatient setting; low-income beneficiaries receive lower-quality care and have worse outcomes on metrics included in clinical quality programs for outpatient care such as diabetes control and cancer screening.<sup>12-15</sup> In the post-acute setting, outcomes are again related to income; Medicaid-enrolled beneficiaries tend to be admitted to lower-quality skilled nursing facilities than non-dually-enrolled beneficiaries,<sup>16</sup> and may have less access to home-based post-acute care (or HCBS).<sup>17</sup> Some research suggests that access to home health, rehabilitative, and long-term care services including HCBS may be worse for low-income populations, though less is known about patterns of care and access in these settings.<sup>18,19</sup>

### B. Race and Ethnicity

The IOM's 2002 landmark report "Unequal Treatment" provided extensive documentation that race and ethnicity are closely tied to overall health and specific health outcomes.<sup>20</sup> Both Black and Hispanic Americans have lower life expectancies and higher rates of chronic disease than their White counterparts. People who self-identify as racial or ethnic minorities are at higher risk of readmission following hospitalization<sup>21-24</sup> and have worse experience with hospital care than non-minority populations (as measured by patient experience surveys).<sup>25</sup> Paradoxically, for in-hospital mortality measures, findings are more mixed: prior studies have shown significantly lower mortality following acute myocardial infarction, heart failure, and pneumonia for Black and Hispanic Medicare beneficiaries; findings are particularly striking for Hispanics, with up to 50% lower cardiovascular mortality reported in multiple studies.<sup>26-30</sup>

Race and ethnicity-based differences are also evident in the ambulatory setting. Hospital admissions for ambulatory care-sensitive conditions, or those conditions for which high-quality primary care should decrease the likelihood of hospitalization, are higher for racial and ethnic minorities.<sup>31</sup> In addition, racial and ethnic minorities have lower rates of diabetes and hypertension control,<sup>32</sup> and consequently, higher rates of heart attack, stroke, and other long-term consequences of these conditions.<sup>33</sup> While survival with chronic kidney disease is worse for Black and Hispanic beneficiaries compared to Whites,<sup>34</sup> studies have documented a survival advantage for Black and Hispanic beneficiaries on dialysis compared to White beneficiaries.<sup>35,36</sup> In the post-acute setting, racial and ethnic minorities are more likely to go to

low-quality skilled nursing facilities and to be readmitted to the hospital after being discharged to a post-acute care facility.<sup>37-39</sup>

The majority of prior work has focused on Black-White and Hispanic-White differences; much less is known for Asian Americans, Native Hawaiians, and other Pacific Islanders, American Indians, and Alaska Natives.

### **C. Community Factors, including Rurality**

Community context can influence a host of important social risk factors, from income to education to access to healthy food. It can also be used as a proxy for individual social risk. For example, studies have shown that individuals from socioeconomically disadvantaged neighborhoods have higher hospital readmission rates than those living in less-deprived neighborhoods, independent of individual markers of social risk.<sup>40</sup> Neighborhood disadvantage has also been associated with higher mortality after myocardial infarction<sup>41</sup> and stroke.<sup>42</sup>

Rurality is another important component of community identity, and is associated with differential health outcomes compared to living in more urban areas. Persons living in rural communities have higher rates of chronic illness<sup>43</sup> and poorer access to generalist and specialist outpatient care than those living in urban areas.<sup>44</sup> Further, individuals seeking hospital care in rural areas have worse outcomes for common inpatient conditions such as heart attacks, heart failure, and pneumonia,<sup>45,46</sup> and are more likely to visit the emergency department after discharge.<sup>47</sup> However, readmission rates are similar or lower for beneficiaries in rural areas,<sup>48,49</sup> and reported patient experience is better.<sup>50,51</sup> In the ambulatory setting, findings are mixed on the quality of care received in rural versus urban areas.<sup>52-54</sup> Findings are also ambiguous in post-acute settings: rural beneficiaries may encounter poor quality in the hospice setting<sup>55</sup> and are more likely to be admitted to low-quality nursing homes,<sup>56</sup> but readmission rates from home health settings are lower in rural areas.<sup>57</sup>

### **D. Disability**

Though not a social risk factor, disability is a key metric in current Medicare enrollment data because disability can confer Medicare eligibility (see next section), and it is closely linked to many social risk factors. For example, Medicare beneficiaries under 65 years of age with disabilities are much more likely to be poor and to self-identify as racial or ethnic minorities.<sup>58,59</sup> People with disabilities may face significant barriers to education and employment.<sup>60</sup> Disability is also an independent predictor of poor mental and physical health outcomes; over half of the Medicare population with disabilities under 65 reports a mental health diagnosis, and beneficiaries with disabilities are much more likely to report being in poor overall health.<sup>59</sup> Individuals with disabilities may receive lower-quality preventive care<sup>61</sup> and have worse outcomes for medical conditions such as cancer.<sup>62</sup> Disability status is currently used for Medicare Advantage (MA) payment determination, as disability is included in the CMS Hierarchical Condition Categories (HCC) risk adjustment system, and it is included in risk adjustment in some of the quality measures examined in this report.

## **III. Social and Related Risk Factors Included in this Study**

To assess the relationship between social risk factors and performance on the metrics in Medicare payment programs, social risk factors had to be identified and defined using existing Medicare data. Variables selected for the study are summarized in the table below, with a description following.

**Table 2.1: Social and Related Risk Factor Study Variables**

<b>Risk Factor</b>	<b>Beneficiary-Level Variable</b>	<b>Provider-Level Variable</b>	<b>Strengths</b>	<b>Limitations</b>
<b>Income</b>	Dually-enrolled status	Top quintile of proportion dually enrolled in Medicare and Medicaid, or alternatively of SSI or Disproportionate Share Index (where available)	Easily available, widely used, good face validity	Binary, requires Medicaid enrollment rather than just eligibility
<b>Income</b>	Zip Code Tabulation Area (ZCTA)-level income: Lowest Quintile	Lowest quintile of median ZCTA-level income within the Hospital Service Area or equivalent	Not dependent on beneficiary application for or enrollment in special programs	Imprecise estimator of individual income
<b>Race/ethnicity</b>	RTI recode of Medicare race/ethnicity variable	High-Black hospital defined as top quintile of proportion Black, High-Hispanic hospital defined as top quintile of proportion Hispanic	Improves identification of racial and ethnic minorities over Medicare race/ethnicity code contained in claims data	Does not allow for multiple categories, remains a problem to identify some racial and ethnic groups  Includes a limited number of race and ethnicity codes
<b>Rurality</b>	Home ZIP code outside Metropolitan Statistical Area*	Provider's billing ZIP code not in a Metropolitan Statistical Area*	Easily available, corresponds to Medicare payment policy	Dichotomous, so does not capture degrees of rurality
<b>Disability</b>	Original Reason for Medicare Entitlement	Top quintile of proportion of beneficiaries with disabilities	Easily available, currently used in Medicare Advantage payments	Requires application and enrollment, does not capture those who acquire a disability after age 65

RTI=Research Triangle Institute

\*For post-acute care, rural was defined as outside both Metropolitan and Micropolitan Statistical Areas, in keeping with Medicare payment rules. For home health, rurality is based on the beneficiary's ZIP code rather than the agency's ZIP code, which is how Medicare determines rurality for this program. For the Medicare Shared Savings Program, since hospitals and providers may be geographically dispersed, "rural" ACOs were considered to be those with the highest proportion of rural beneficiaries.

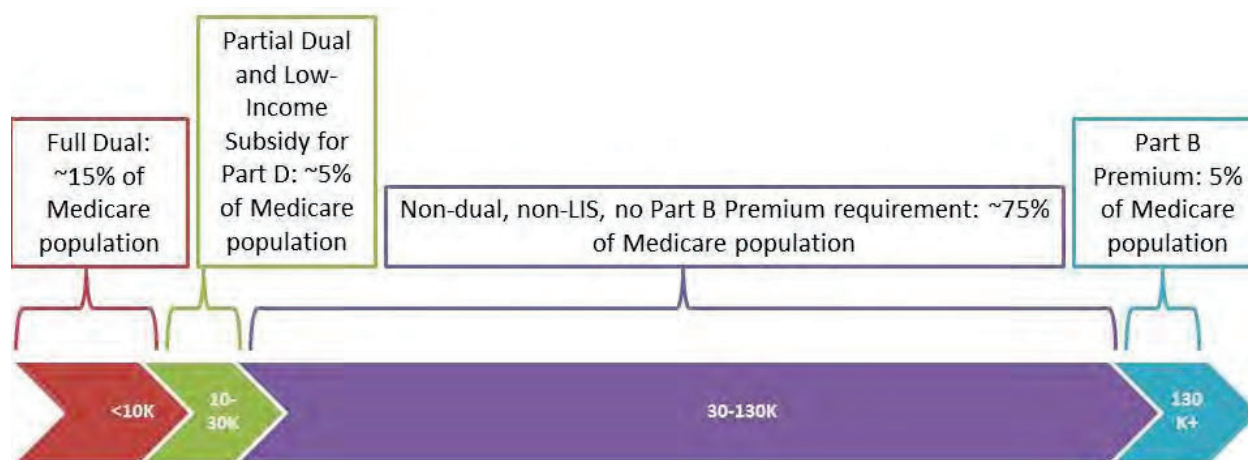
## **A. Income**

### *Definitions and Limitations of Available Data*

The first social risk factor variable relevant to this study is income. However, because eligibility for and receipt of Medicare services is not related to income, the Medicare program does not routinely collect detailed income information about beneficiaries. This is in contrast to other programs, such as Medicaid and the federal Supplemental Security Income (SSI) program, that determine eligibility in part by income and thus require the government to collect income data as part of the enrollment process. Thus, the best available data may be collected by another program and then reported in the existing Medicare data.

Figure 2.1 summarizes the beneficiary-level income data used in Study A, and demonstrates that the available information is largely in the tails of the income distribution; each component is described in the paragraphs that follow:

**Figure 2.1: Individual-level Income Data in Medicare**



### 1. Defining Income using SSI Enrollment

The IMPACT Act mentions use of federal SSI enrollment data, and that data might be ideal for evaluating poverty, since SSI eligibility relies on a federal standard. To be eligible for SSI, an individual must be aged 65 or over, blind, or disabled, and have limited income, limited resources, and meet certain citizenship and residency requirements. SSI is scaled, such that the more income an individual has (up to the Federal Benefit Rate (FBR)), the lower the SSI benefit will be. The FBR was \$733 per month for individuals in 2015. Unfortunately, beneficiary SSI receipt is not contained in existing Medicare data. This variable is held by the Social Security Administration (SSA) and is not released to CMS or to researchers except for the express purpose of determining hospital disproportionate share payments. Thus, it is not currently available for individual-level analyses. An aggregate proxy at the hospital level is available, the proportion of beneficiaries at a hospital who receive SSI, and this is used in hospital-level analyses where appropriate.

### 2. Defining Income using Medicaid Enrollment

One way to identify individual income in Medicare administrative data is by identifying those Medicare beneficiaries who are also enrolled in Medicaid, often referred to as “dually enrolled.” Dual enrollees make up a significant proportion of the Medicare population: roughly one in five Medicare beneficiaries



is dually enrolled. In 2013, there were 10.7 million dual enrollees nationally, of which 7.7 million (72%) had full Medicaid benefits.<sup>63</sup> About two-thirds of dual eligible beneficiaries are over the age of 65, while about a third are younger individuals with disabilities.<sup>64</sup>

Though Medicaid eligibility is defined on a state-by-state basis, it varies much less across states for the over-65 and disabled populations that are the focus of this Report. For over-65 and disabled populations in 40 states plus the District of Columbia, Medicaid eligibility in the Medicare population is connected to receipt of SSI, which sets an income standard for eligibility at roughly 75% of the Federal Poverty Level (FPL).<sup>d</sup> However, about one third of states set their eligibility levels at 100% FPL or higher. There are also ten states, known as 209(b) states, in which eligibility rules for dually eligible populations can be set lower than the SSI standards.<sup>e</sup>

Additionally, there are different types of dual eligibility based on income and assets, and these also vary somewhat by state. “Full dually-enrolled beneficiaries” fall under the lowest income and asset cutoffs, and receive both full Medicare benefits and full Medicaid benefits. “Partial dually-enrolled beneficiaries,” with slightly higher income and assets, receive only certain components of the Medicaid benefit package. For example, partial dually-enrolled beneficiaries may receive assistance only with premiums for the Part B Medicare benefit, or only with cost sharing for Medicare benefits.<sup>65</sup> In 2013, 28% of dually-enrolled beneficiaries were in one of the partial coverage categories.<sup>63</sup> Appendix 2.A provides a full list of the categories of dual eligibility and state requirements for each.

Medicare data captures Medicaid enrollment with a variable labeled “state reported dual eligible status code.” This code, captured monthly, indicates which of the individual categories of dual eligibility apply to the beneficiary.

Using dual enrollment as an income proxy has several limitations. One is its variability by state, though, again, this is much less of an issue for the over-65 and disabled populations that constitute the dually-enrolled population in Medicare. A second important limitation is that dual enrollment only captures individuals who are actually enrolled in Medicaid and misses low-income beneficiaries who have not applied for Medicaid, or who are not aware they are eligible for income assistance. Medicaid enrollment also fails to identify the “near-poor” who may face similar challenges as Medicaid recipients but who lack the additional support that Medicaid provides. Finally, dual enrollment is a binary variable, and does not offer information about the actual income or assets of individuals, but rather only indicates that they fall below Medicaid eligibility thresholds.

### 3. Defining Income using Low-Income Subsidy Enrollment

A second way to identify individual income in Medicare data is to identify Medicare beneficiaries who are eligible for low-income subsidies (LIS) for purchasing prescription drugs through Medicare Part D.

<sup>d</sup> SSI uses the Federal Benefit Rate (FBR), while Medicaid uses the Federal Poverty Level; the current FBR to qualify for SSI is roughly 75% of the FPL.

<sup>e</sup> SSI was created by the amendments of 1972 and became effective in 1974. Section 209(b) of that Act allowed states to apply 1972 eligibility criteria to aged or disabled individuals receiving SSI benefits for purposes of determining Medicaid eligibility (<https://www.govtrack.us/congress/bills/92/hr1/text>).

This program applies to beneficiaries with incomes up to 150% of the FPL and has higher asset limits than SSI. The LIS program provides assistance on a sliding scale with premiums and copays for prescription drug coverage. Because the income standard for the low-income subsidy is federal, it has the advantage of being uniform across states. It also captures a slightly higher-income group than dual enrollment alone based on its eligibility criteria.

A limitation to using LIS as a marker for poverty is that LIS enrollment data are only available in Medicare administrative datasets for beneficiaries who are enrolled in Medicare Part D. As of 2013, there were 37 million such Medicare beneficiaries, representing about two-thirds of all Medicare beneficiaries. However, state enrollment in Part D varies from 40% of beneficiaries in Alaska to 75% in California. Participation in Part D also varies by enrollment in Medicare Advantage, with the vast majority of Medicare Advantage enrollees also participating in a Part D plan, but only about half of fee-for-service beneficiaries enrolled in Part D.<sup>66</sup> Finally, prior research has shown that individuals with low incomes,<sup>67</sup> as well as those with cognitive limitations and low numeracy,<sup>68,69</sup> are less likely to enroll in Part D, suggesting that the Part D population may not be representative of the broader Medicare population, particularly among those groups who are socially at-risk.

#### **4. Defining Income using the Part B Income-Related Premium**

One additional measure identifies beneficiaries with high incomes. This is the Part B (and, for those who participate, Part D) income-related premium. Currently, Medicare beneficiaries pay a monthly premium for Part B coverage that is generally equal to 25 percent of the average monthly per-capita Part B expenditures;<sup>70</sup> in 2016 this was about \$122 per month.<sup>71</sup> However, beneficiaries with higher incomes (more than \$85,000 per year for individuals and more than \$170,000 per year for couples filing their taxes jointly) are required to pay higher rates. These higher rates affected roughly 5 percent of Medicare beneficiaries, and range from 35 percent to 80 percent of average per-capita costs, or \$170.50 to \$389.80 monthly in 2016. As a result of changes contained in the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA), in 2018, the contributions for individuals with incomes above \$133,500 (or couples above \$267,000) will increase further. These data are based on tax filings rather than applications for a particular program. However, they only identify the top 5 percent of Medicare beneficiaries in terms of income. For this work, therefore, the income-related premium variable was considered in exploratory analyses only.

#### **5. Defining Income Using Geographic Indicators**

A final potential source of data for income is not beneficiary-level data but rather data that pertain to a beneficiary's area of residence. While this source of data is not specifically mentioned in the IMPACT Act, geography-based income data was examined as part of this project in exploratory analyses.

The American Community Survey (ACS) includes U.S. Census data on local income and can be linked with Medicare data to provide geography-based income estimates for Medicare beneficiaries. The ACS samples about 3.5 million housing units each year. Single-year estimates are released for areas with populations of 65,000 or above; three-year estimates are released for areas with populations of 20,000 or above; and five-year estimates are released with no minimum population threshold. The smallest geographic census units are the 11 million Census Blocks, for which no data are released. However, the



Census Bureau does release five-year ACS data for the increasingly larger geographic areas of “Block Groups” (roughly 1,500 individuals per group), “Census Tracts” (roughly 4,000 individuals per group), and “ZIP Code Tabulation Areas (ZCTAs)” (roughly 10,000 individuals per group). Block Group and Census Tract data are technically difficult to use when street addresses must be matched to these geographic entities. However, variables available at the ZCTA level, which are available with Medicare claims, include median income, poverty rate, SSI rate, dual enrollment rate, rate of receipt of Supplemental Nutrition Assistance Program (SNAP), Medicaid enrollment rate, and information on educational attainment. These data can be used as proxies for an individual’s SES, or as a measure of neighborhood effects that may be important in themselves.

The major limitation of geography-based income data is that a median income may not adequately reflect any given individual in that area; an area in Manhattan, for example, with both extremely wealthy and extremely poor individuals might have a modest median income, which would create a significant misclassification.

## **6. Variables Chosen and Rationale**

As discussed above, no single existing income variable in Medicare data provides precise information on beneficiaries’ income. Therefore, this study uses multiple measures of income, recognizing that the strengths of each may offset the limitations of the others. The analyses in this report focus on dual eligibility because of its availability for all Medicare beneficiaries and on LIS where available, for analyses on Medicare Advantage and Part D. In exploratory analyses, median ZCTA income along with other ZCTA-level variables, as well as the high-income indicator, were considered. The second, forthcoming study mandated by the IMPACT Act, referenced as “Study B” in Chapter 1, will address alternative metrics of income currently unavailable in the Medicare program that may provide more precise estimates of this important factor.

At the provider level, being in the highest quintile of the proportion of beneficiaries who were dually enrolled was generally used to categorize what were referred to as “high-dual” providers. For example, physician practices in the highest quintile of the proportion of assigned beneficiaries who were dually enrolled (full or partial) were referred to as “high-dual practices;” the dialysis facilities with the highest proportion of dually enrolled beneficiaries were referred to as “high-dual facilities,” and so on. However, for hospital analyses, since the Disproportionate Share Hospital (DSH) Index is widely used and accepted as a way in which to define safety-net hospitals, the top quintile of DSH Index was used to identify the hospital group of particular interest. One important caveat is that “safety-net hospitals” are defined many different ways by different researchers, so in some cases, if results in this report do not align with other reports on safety-net hospitals, it may be due to differential classification of the safety net.

## **B. Race and Ethnicity**

### *Definitions and Limitations of Available Data*

Two variables designating the race and ethnicity of Medicare beneficiaries are available in Medicare’s primary administrative dataset, the Master Beneficiary Summary File (MBSF). Rather than obtaining

these variables from beneficiaries, the Medicare program obtains these variables indirectly. The first race variable, the Beneficiary Race Code, is obtained from the SSA, which transfers demographic data on applications for Social Security Numbers (SSNs) to the MBSF. The second variable is derived using an algorithm developed by the Research Triangle Institute (RTI).

### **1. Defining Race and Ethnicity Using SSA Data**

Over time, the race and ethnicity data collected by the SSA and transferred to the Medicare program have changed. From its inception through 1980, SSA collected race information by asking SSN applicants to identify voluntarily with one of only three categories (White, Black, and Other); applicants who selected none of the three categories were assigned a race of Unknown. In 1980, in response to guidance from the Office of Management and Budget,<sup>72</sup> the race and ethnicity categories were expanded to 1) White, non-Hispanic; 2) Black, non-Hispanic; 3) Asian, Asian American, or Pacific Islander, non-Hispanic; 4) Hispanic; or 5) American Indian or Alaska Native, non-Hispanic. Applicants were still asked to choose only one category. The category of Other was eliminated, while Unknown was still applied to applicants who made no selection. The SSA has never allowed SSN applicants to specify both a race and an ethnicity, nor does it allow for individuals to be identified as more than one race and/or a separate race and ethnicity. Additional limitations include the fact that the MBSF does not identify Asian and Pacific Islander beneficiaries separately. Furthermore, the SSA has been assigning SSNs at birth rather than waiting for voluntary SSN application (generally for employment) since 1989. Because birth certificates may not contain race and ethnicity data (this varies by state), some enrollees in more recent years do not have any race and ethnicity data from SSA.<sup>73</sup>

These limitations inherent to SSA's historical data collection methods in turn limit Medicare's data on race and ethnicity, despite numerous efforts by CMS to improve the administrative database in past decades.<sup>74</sup> While the Beneficiary Race Code is highly accurate for White and Black beneficiaries compared to the gold standard of self-report identified by the Institute of Medicine,<sup>75</sup> (with sensitivities of 97% and 95%, respectively) it is only moderately accurate in identifying Hispanic, Asian and Pacific Islander, and American Indian and Alaska Native beneficiaries, with sensitivities of 39%, 58%, and 11%, respectively.<sup>76-80</sup>

### **2. Defining Race / Ethnicity Using Imputed Data**

Given the limitations of SSA data, and in the absence of self-reported race and ethnicity data, researchers have developed additional indirect methods to estimate or "impute" Medicare beneficiary race and ethnicity. One such indirect approach, developed by RTI, assigns an updated race and ethnicity using beneficiary surname, first name, language preference, and existing Medicare Beneficiary Race Code.<sup>76</sup> This RTI method is more sensitive for identifying Hispanic and Asian and Pacific Islander beneficiaries than the Beneficiary Race Code (sensitivities of 77% and 79%, respectively), and maintains similarly high performance in identifying White and Black beneficiaries. The RTI imputation algorithm creates an additional race and ethnicity variable, the "Research Triangle Institute (RTI) Race Code," currently included in the Medicare administrative record.

The RTI method is limited in that that it was not designed to improve identification of beneficiaries who identify as American Indians/Alaska Natives, so that population remains under-identified. In addition,

the method does not identify Asian and Pacific Islander beneficiaries separately, nor does it allow for individuals to be identified as more than one race and/or a separate race and ethnicity.

### **3. Defining Race / Ethnicity Using Other Sources of Data**

While several other initiatives within the Medicare program collect race and ethnicity data, they only do so for samples or targeted subgroups of beneficiaries. For example, the Medicare Current Beneficiary Survey obtains detailed, self-reported information on race and ethnicity from respondents, but only for a sample (currently about 15,000 beneficiaries annually) of the Medicare population.<sup>81</sup> Similarly, while certain assessment tools for Medicare post-acute care settings also include race and ethnicity items, this information is available only for the subset of Medicare beneficiaries who use these services, and the data are not stored in the MBSF file.

In the future, race and ethnicity data may be available from other sources, including electronic health records (EHRs). The Office of the National Coordinator, in the finalized 2015 Certification Rule, includes granular capture of race and ethnicity as a criterion for Health IT; data standards for this data capture are compliant with the OMB standards discussed above as well as with Centers for Disease Control (CDC) race and ethnicity data standards. The criterion also requires a Health IT module to be able to record multiple races and/or ethnicities for a patient (see <https://www.healthit.gov/policy-researchers-implementers/2015-edition-final-rule>).

### **4. Variables Chosen and Rationale**

The RTI Race Code improves substantially upon the Beneficiary Race Code in identifying Hispanic and Asian and Pacific Islander beneficiaries, and maintains similar performance in identifying White and Black beneficiaries. Currently, there is no alternative variable in existing Medicare data that: 1) better identifies American Indian and Alaska Native beneficiaries, 2) separates out Asian and Pacific Islander populations, and/or 3) allows beneficiaries to be identified with more than one race or a race and an ethnicity. In the absence of such a variable, which would improve upon the weaknesses of both the Beneficiary Race Code and the RTI Race Code, the RTI Race Code is used for the analyses in this report. However, future analyses, included those conducted under Study B, may explore more granular data from alternative data sources where available.

For providers, those in the highest quintile of the proportion of beneficiaries who were Black or Hispanic were referred to as high-Black or high-Hispanic, respectively. However, it is worth noting that since the population prevalence of these racial and ethnic groups is relatively low, a “high-Hispanic” provider might still only have a beneficiary mix of 15% Hispanic beneficiaries in some cases. Therefore, these provider classifications should be interpreted in light of the population prevalence of the beneficiary groups in question.

### **C. Community Factors, including Rurality**

#### *Definitions and Limitations of Available Data*

Another important community variable that can serve as a proxy for individual social risk, and to quantify local resources, stressors, and supports, is rurality. Many Medicare payments, including those made for acute, post-acute, dialysis, and ambulance services, are adjusted in some way for rurality,

which, for the purposes of Medicare payments, is commonly assigned using a beneficiary or provider's geographic location (address).

### **1. Defining Rurality Using Core-Based Statistical Areas (CBSAs)**

For most Medicare classifications that identify rural areas, CMS uses a concept developed by the Office of Management and Budget (OMB), Core-Based Statistical Areas (CBSAs).<sup>82</sup> CBSAs are county-based areas consisting of an urban core and adjacent areas that are economically tied to that core by commuting. They have three major classifications: Metropolitan Statistical Area (MSA), Micropolitan Statistical Area (mSA), or Neither. An MSA contains an urban core population of 50,000 or more, while an mSA contains an urban core population of at least 10,000 but less than 50,000. An area without a core population of at least 10,000 is considered neither Metropolitan nor Micropolitan.

For most Medicare payment purposes, all counties that are not part of an MSA are considered rural, so that counties classified as either Micropolitan or Neither are considered rural. Under these definitions, there are 381 MSA and 536 mSAs currently in the U.S.; about 15% of the overall U.S. population and 72% of the land area of the country is in non-metropolitan, or rural, counties.<sup>83</sup> In the post-acute setting, only Neither is considered to be rural for payment purposes.

One important limitation to this method is that the use of a county-based method like the CBSA may obscure important differences within counties, particularly large ones that include many different areas. Because counties that include both rural and urban areas are classified as urban if they include a core urban area, some areas within counties may end up with counterintuitive classifications. An example is San Bernardino County, CA, which includes both the outskirts of the city of Los Angeles as well as Death Valley, but is still classified as urban.<sup>84</sup>

### **2. Defining Rurality Using Alternative Methods**

The Federal Office of Rural Health Policy (FORHP) in the Health Resources and Services Administration (HRSA) has developed an additional method that is commonly used when studying Medicare beneficiaries and providers. This method begins by defining all non-MSA counties as rural, but then applies additional parameters to reclassify rural areas within Metropolitan counties based on Rural-Urban Commuting Area (RUCA) codes developed by the U.S. Department of Agriculture (USDA).<sup>85</sup> While this method allows for more granular identification of rural providers and beneficiaries, it is not currently used by CMS for most payment purposes, with the exception of Critical Access Hospital determination and telehealth billing. Analyses of rurality beyond what CMS currently uses will be pursued in Study B.

### **3. Variables Chosen and Rationale**

Because CMS follows OMB guidance to adjust payments to individual providers, clinics, and hospitals, the CBSA methodology is most applicable for the analyses conducted for this Report. However, granular data on rurality may be important to explore, and will therefore be included in Study B.

At the provider level, where a provider had an address (for example, a hospital or skilled nursing facility), the address was used to assign the provider rural or urban status. However, for providers that are geographically dispersed (for example, an ACO or a Medicare Advantage health plan), the providers in

the top quintile of the proportion of assigned beneficiaries who were considered rural were classified as rural providers.

A separate set of work has been undertaken to examine rural providers that are ineligible for the Medicare payment programs included in this report because they are paid under unique mechanisms. For example, Critical Access Hospitals are statutorily excluded from the Hospital Readmissions Reduction Program, Hospital Value-Based Purchasing, and the Hospital-Acquired Conditions Reduction Program because they are not paid under the Inpatient Prospective Payment System, on which these programs are based. Analysis of these providers is outside the scope of this Report but complementary to its findings; please see the ASPE brief entitled “Rural Hospital Participation and Performance in Federal Health Care Delivery System Reform Initiatives” for further information.<sup>85</sup>

## **D. Disability**

### *Definitions and Limitations of Available Data*

As noted above, while this study did not classify disability as a social risk factor, disability was included in study analyses across programs because of its close linkage to potentially unmeasured social risk factors, availability in the Medicare claims data, and current use in Medicare programs.

#### **1. Defining Disability Using Original Reason for Medicare Entitlement**

Section 223(d) of the Social Security Act defines disability as the "(A) inability to engage in any substantial gainful activity by reason of any medically determinable physical or mental impairment which can be expected to result in death or which has lasted or can be expected to last for a continuous period of not less than 12 months; or (B) in the case of an individual who has attained the age of 55 and is blind (within the meaning of “blindness” as defined in section 216(i)(1)), inability by reason of such blindness to engage in substantial gainful activity requiring skills or abilities comparable to those of any gainful activity in which he has previously engaged with some regularity and over a substantial period of time." If these criteria are met, individuals may be eligible for Social Security Disability Insurance (SSDI).

Individuals younger than 65 who have received SSDI payments for 25 months are entitled to Medicare Part A and are eligible for Part B the month their disability benefits begin. Individuals younger than 65 who have been diagnosed with amyotrophic lateral sclerosis (ALS) are entitled to Medicare Part A and are eligible for Part B the month their disability benefits begin. Individuals younger than 65 who are undergoing dialysis for end-stage renal disease (ESRD) generally receive Medicare Part A and Part B on the first day of the fourth month of dialysis treatments, with a few exceptions. The original reason for an individual’s Medicare entitlement can be found in the variable “Original Reason for Entitlement Code” (OREC) in the Master Beneficiary Summary File. At the age of 65, those with OREC indicating disability retain this code, though their current Medicare status code (MS\_CD) changes from Disabled (with or without ESRD) to Aged (with or without ESRD).

Using the OREC variable to identify disability has certain limitations. Because individuals must apply for and receive this designation, for example, the data do not capture individuals who have a disability but

did not seek formal designation as such. In addition, the OREC does not identify beneficiaries who acquire a disability after Medicare enrollment at age 65.

## 2. Defining Disability Using Alternative Methods

The limitations noted above have sparked efforts to create algorithms using claims data to identify individuals with a high probability of having a disability. The recent ASPE/Mathematica issue brief entitled “Identifying Medicare Beneficiaries with Disabilities: Improving on Claims-Based Algorithms” provides an introduction to this issue.<sup>86</sup> These algorithms are beyond the scope of this first report, but may be important to explore in future work.

## 3. Variables Chosen and Rationale

This study selected the OREC variable to identify individuals as having a disability because it is valid, complete, and available in enrollment data and thus uniformly usable across programs. In addition, this variable has been used previously in Medicare payment policy.

At the provider level, those in the highest quintile of the proportion of beneficiaries who had originally qualified for Medicare based on a disability were considered “high-disabled” providers.

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## CHAPTER 3: Statistical Methods

### I. Study Overview and Research Questions

This Report quantifies the underlying relationships between social risk factors and the patient-level measures contained in the Medicare payment programs. It also examines the performance of providers that serve beneficiaries with social risk factors under specific programs. (Note that here the term “providers” is used to indicate physicians, hospitals, dialysis facilities, nursing facilities, Medicare Advantage contracts, etc.) In addition, this Report outlines policy options that could potentially address social risk factors, and quantifies the impact of these options on providers serving beneficiaries with social risk factors.

Analyses were structured around three research questions, as shown in Table 3.1:

**Table 3.1: Research Questions**

<p><b>1. A. Is there a relationship between social risk factors and performance on the metrics that comprise the Medicare payment programs, above and beyond current adjustments?</b></p> <p><b>B. If so, is this primarily related to patient factors, or due to differences in the quality of the providers from which beneficiaries with social risk factors seek care?</b></p>
<ul style="list-style-type: none"> <li>Example: Are dually-enrolled beneficiaries more likely to be readmitted after a hospitalization for congestive heart failure? If so, is this primarily related to a patient’s dual enrollment, or is this because dually-enrolled beneficiaries are discharged from hospitals that tend to have higher readmission rates?</li> </ul>
<ul style="list-style-type: none"> <li>Example: Are rural beneficiaries with chronic obstructive pulmonary disease more likely to have higher annual costs of care? If so, is this primarily related to where beneficiaries live, or is this because physician practices that care for rural beneficiaries tend to have higher costs for beneficiaries with this condition in general?</li> </ul>
<p><b>2. Is the Medicare payment program in question more likely to penalize providers with a high share of beneficiaries with social risk factors?</b></p>
<ul style="list-style-type: none"> <li>Example: Under the Hospital Readmission Reduction Program, are safety-net hospitals more likely to receive a penalty than non-safety-net hospitals?</li> </ul>
<ul style="list-style-type: none"> <li>Example: Are physician practices with a higher proportion of Hispanic beneficiaries more likely to receive a downward payment adjustment in the Physician Value-based payment modifier Program?</li> </ul>
<p><b>3. How would different policy options change the way providers are impacted by the Medicare payment program in question?</b></p>
<ul style="list-style-type: none"> <li>Example: If the Hospital Readmission Reduction Program assigned penalties within tiers of the disproportionate share index instead of across all hospitals, would this change the financial impact on safety-net hospitals?</li> </ul>
<ul style="list-style-type: none"> <li>Example: If the Physician Value-based payment modifier adjusted quality and cost metrics for dual enrollment, would physician practices with a high proportion of dually-enrolled</li> </ul>

beneficiaries be penalized less often?
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The intent in following this consistent framework across each of the programs was to develop a large and clear body of evidence that would inform conclusions and considerations within each of the programs, and also allow conclusions to be drawn across programs. The results presented in the following chapters are structured according to these main questions for each program. Although metrics, and, in some cases, data sources differ, the same approach was used to study the effect of social risk within each Medicare payment program.

## II. Statistical Approach, by Research Question

- 1. A. Is there a relationship between social risk factors and performance on the metrics that comprise the Medicare payment programs, above and beyond current adjustments?**
- B. If so, is this primarily related to patient factors, or to differences in the quality of the providers from which beneficiaries with social risk factors seek care?**

Raw performance on claims-based measures (readmissions, admissions, costs, etc.) was first calculated for beneficiaries having the social risk factor of interest versus beneficiaries not having the risk factor (e.g., dually-enrolled versus non-dually-enrolled). For binary outcomes, regression models were then developed to estimate the total (within- and between-provider) odds of the particular outcome for beneficiaries with versus without the social risk factor. “Within-provider” differences are those differences in quality or outcomes that are evident between two beneficiaries within the same provider—for example, between dual and non-dual beneficiaries at the same hospital. In contrast, “between-provider” differences are those differences in quality or outcomes between two beneficiaries cared for by different providers—for example, between beneficiaries at hospital A versus hospital B. Between-provider differences may represent differences related to the quality of a provider’s performance or to unmeasured differences in patient population or to differences in the health care environments of the providers.

Each model included risk adjustment based on CMS specifications for each particular measure, where applicable (i.e., risk-standardization for readmissions and age/sex adjustment for preventable admissions). Models were built using generalized estimating equations (GEE) with an independent correlation matrix, such that the differences found reflected the total differences between beneficiaries with social risk factors and their non-at-risk peers (question 1A). These models were repeated for each of the patient-level social risk factors of interest.

Question 1B asks whether beneficiaries with social risk factors do more poorly even within the same provider. A provider random effect was thus added to the models described above, to isolate the within-provider differences in outcomes. In each case, a term for the proportion of beneficiaries with social risk factors served by each provider was also added, to control for residual confounding by provider.

Additionally, analyses were conducted to quantify the effect of receiving care from a provider serving a high proportion of beneficiaries with social risk factors, as outlined in Chapter 2. For most programs, these providers are the ones in the highest 20% of each social risk factor, with the exceptions noted in



Chapter 2. Models were re-run at the patient level with a random effect for provider, but this time the primary predictor was the provider type (e.g., high-dual hospital, or rural dialysis facility) as the primary predictor; these models yield the total effect of being cared for by a particular type of provider, which includes both the effects of the patient population as well as the effect of the provider type.

Finally, models including both patient-level and provider-level social risk as predictors were run. These models included, for example, whether beneficiaries were dually-enrolled and whether they were discharged from a high-dual hospital in the same model. These analyses separate the independent contribution of patient from provider factors to performance.

The next set of analyses focused on determining the consistency of the relationship between social risk factors and outcomes across providers – for example, determining the consistency of the difference in readmission rates between dually-enrolled and non-dually-enrolled beneficiaries across hospitals. This analysis can yield information about whether the gap can be reduced or eliminated. For example, a highly variable difference between dually-enrolled beneficiaries and non-dually-enrolled beneficiaries across hospitals might suggest that some institutions had been able to effectively close the gap, and therefore other hospitals may learn to do so as well. On the other hand, more consistency across hospitals might suggest that the relationship between dual enrollment and readmissions was a more innate one and less easily remedied.

To determine the consistency of relationships, the random effects models from question 1A above were re-run with the CMS risk adjustment for each measure, but this time including an additional random effect for the social risk factor of interest. Rather than calculating the average within-hospital difference between dual and non-dual, these models estimate the difference between dually-enrolled and non-dually-enrolled at each individual hospital. These hospital-level differences were then plotted using box and whisker plots.

## **2. Does the Medicare payment program in question disproportionately penalize providers or plans that serve beneficiaries with social risk factors?**

Next, analyses were run to determine whether providers with a high share of beneficiaries with social risk factors were more likely to perform poorly under specific payment programs. These analyses were important because of the processes by which performance is translated to payment in each program. Because of these processes, even if providers serving beneficiaries with social risk factors do more poorly on the individual measures examined in the prior analyses, it is conceivable that they could do relatively well on a program overall. In the Hospital Value-Based Purchasing program, for example, hospitals receive an achievement score and an improvement score for each measure, with the higher of the two becoming their final score. Thus, a hospital with a high overall score may have received this score due either to high levels of achievement or high levels of improvement. As a result, providers with poor absolute performance which are improving quickly may still do well under the program.

In contrast to the prior set of analyses, which were focused on understanding underlying relationships at the patient level, these analyses were all conducted at the provider level. For each program,



performance and scoring were examined for providers that served a high proportion of high social risk beneficiaries, using the same groupings as above (high-dual, rural, etc.). Linear regression models were used, or, in some cases, median regression due to small sample size and non-normal performance data. Performance was first compared on individual measures (e.g. mortality for congestive heart failure), then on domains (e.g., clinical outcomes), and then on total performance score for each program.

Finally, the “bottom line” financial impact of the program was examined. This was different for each program, but in every case represented the final financial impact of the program in question. Examples include the penalty for excess readmissions for the Hospital Readmissions Reduction Program, the Value-Based Incentive Payment Adjustment Factor for Hospital Value-Based Purchasing, or the amount of shared savings generated by an ACO under the Medicare Shared Savings Program. In each case, performance for each provider group of interest was assessed.

Where appropriate, additional analyses adjusting for structural characteristics of the provider or plan were conducted to identify, for example, whether differences in performance for high-dual hospitals were driven by hospital size, or whether differences in performance for rural physician practices were driven by specialty composition.

### **3. How would different policy options change the way providers are impacted by the Medicare payment program?**

This third set of analyses were designed to help policymakers understand how various proposed changes to Medicare payment programs might change the way programs impact providers serving beneficiaries with social risk factors.

This Report’s policy simulations focused primarily on dual enrollment status, as this was the dominant social risk factor in the majority of the analyses performed. Adjustments for race and ethnicity were not modeled because although race and ethnicity have been associated with performance in prior analyses, the magnitude of these relationships is often shown to decline significantly after accounting for poverty and other social factors.

Adjustments for rurality were also not modeled, but for different reasons. First, analyses demonstrated mixed relationships between rurality and performance—i.e., rural providers were as likely to do well as to do poorly. Second, since so many of the relevant rural providers are either statutorily excluded from the programs in this report due to their unique payment arrangements, or practically excluded because of their small sample size, the policy options to address rural delivery system reform more broadly are outside the scope of the programs included here. See the recent ASPE Issue Brief entitled “Rural Hospital Participation and Performance in Federal Health Care Delivery System Reform Initiatives”<sup>1</sup> for further information.

Across Medicare programs, the first option was the status quo. As noted in Chapter 1, four main policy strategies were then tested: A) adjustment for patient-level social risk factors; B) stratification, or

tiering, of providers by social risk; C) rewarding improvement (if not already contained in the program); and D) providing additional bonuses for high performance for beneficiaries with social risk factors. The details of how each option was applied are provided in the program chapters.

For each policy option, the impact was calculated by repeating the “bottom line” calculation under the new scenario, and then calculating the difference between the status quo and the policy option for the groups of interest. For the Hospital Readmission Reduction Program, for example, penalties for individual hospitals were calculated with and without adjustment for dual enrollment, and the penalties for safety-net versus non-safety-net hospitals were compared under the status quo versus the adjusted option.

When applicable, additional program-specific factors were also considered in evaluating policy options. For example, the Hospital Acquired Conditions Reduction Program currently uses a decile-based scoring system; going to a continuous scale as CMS has proposed, while not directly related to social risk per se, could have important ramifications for providers serving high-risk populations. These program-specific simulations are also outlined in the program chapters.

### III. References

1. Snyder JE, Samson LW, Joynt KE. *Rural Hospital Participation and Performance in Federal Health Care Delivery System Reform Initiatives*. Washington, D.C.: Office of the Assistant Secretary for Planning and Evaluation, United States Department of Health and Human Services;2016.

## CHAPTER 4: Best Practices for Achieving Good Outcomes in Socially At-Risk Beneficiaries

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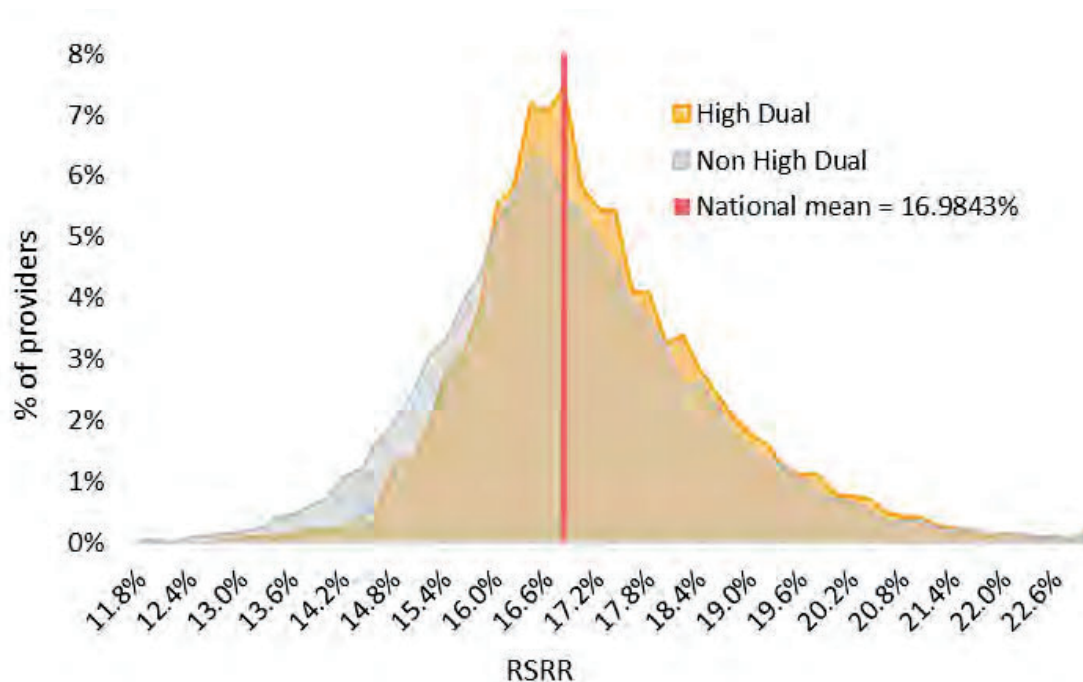
The charge to ASPE in the IMPACT Act was to determine the relationship between social risk and performance on quality and resource use measures under Medicare payment programs. While analyses did reveal significant relationships at the patient level in this regard, analyses also revealed that, in every care setting and every program, there were providers that were able to achieve high performance despite serving a highly at-risk population.

This finding suggested that the Report would not be complete without an explicit focus on this issue. In theory, the best way to reduce the disproportionate burden of Medicare's value-based purchasing programs on safety-net providers would be to improve care and outcomes at these hospitals and practices – thus simultaneously helping Medicare beneficiaries with social risk factors and the providers that serve them. In reality, such a task is much easier said than done. However, the intent of this Chapter is to highlight what is currently known about best practices for achieving good outcomes in beneficiaries with social risk factors; implementation considerations based on these principles for each program are included in the program-specific chapters.

### **I. Variability of Performance for Providers Serving Socially At-Risk Beneficiaries**

This Report examines nine Medicare programs currently using value-based purchasing structures. In every program, while on average providers serving beneficiaries with social risk factors performed worse than those who served a less disadvantaged population, the overlap between the groups was significant. Details are shown in each Chapter for the specific programs, but as an example, Figure 4.1 shows the distribution of readmission rates for SNFs in the top quintile by the proportion of their beneficiaries who were dually-enrolled in the study year versus all other SNFs (i.e., those in the bottom 4 quintiles by proportion dually-enrolled). The SNFs with the highest proportion of dually-enrolled beneficiaries, shown in orange, are over-represented on the right side of the red bar, which represents readmission rates that are higher than average. Conversely, the other SNFs, in gray, are over-represented on the left side of the red bar, where the readmission rates are lower than average. However, there are many high-dual SNFs with very low readmission rates, and vice versa.

**Figure 4.1: Distribution of Risk-Standardized Readmission Rates (RSRR) for High-Dually-enrolled versus Non-High-Dually-enrolled SNFs**



The fact that many high-dual SNFs can perform better-than-average on readmission rates suggests that there may be strategies or techniques that could be used to reduce readmissions at these facilities.

## II. National Academies of Sciences, Engineering, and Medicine Report on Best Practices

The National Academies of Sciences, Engineering, and Medicine (NASEM) was contracted by ASPE to provide a report on best practices for beneficiaries with social risk factors to supplement HHS' evaluation of the effect of individuals' social risk factors on quality measures and measures of resource use. The resulting work, "Systems Practices for the Care of Socially At-Risk Populations"<sup>1</sup> is summarized below.

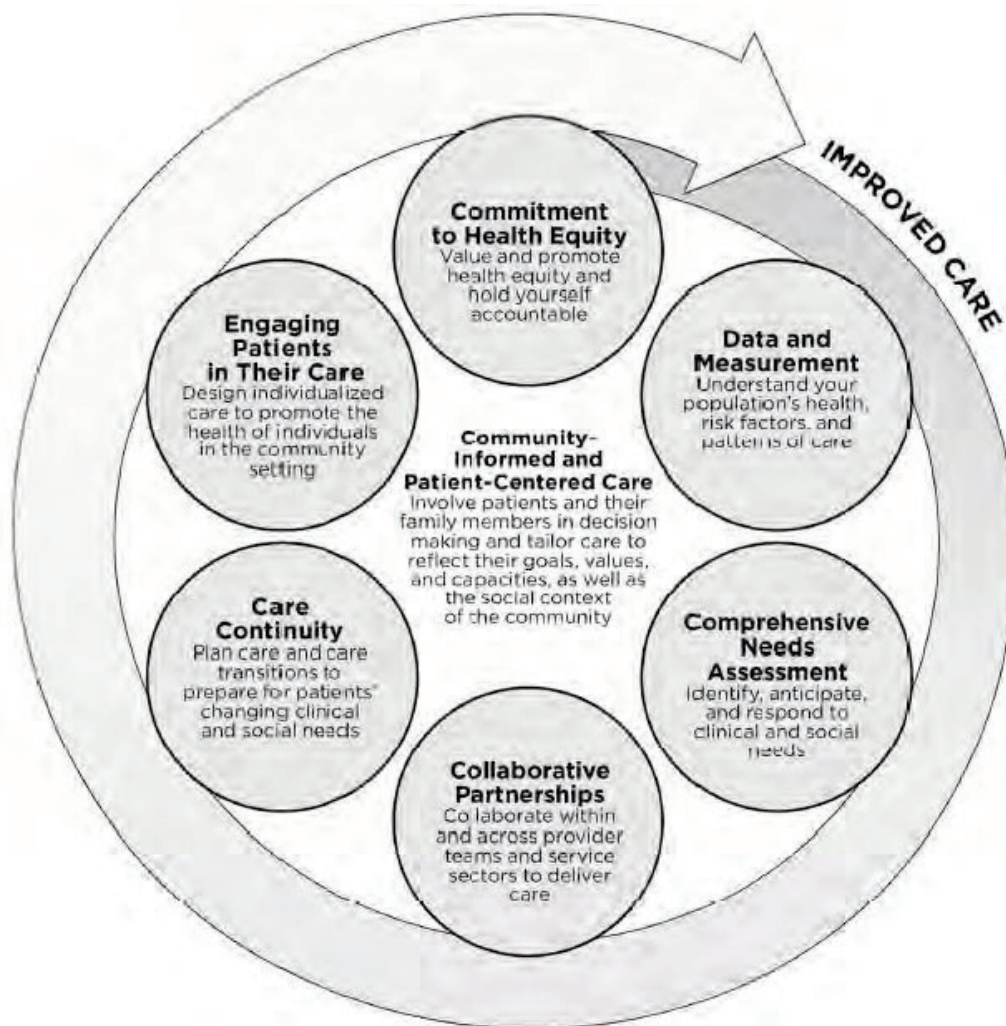
The NASEM identified six systems-level practices that were particularly critical for providers to achieve good care of and outcomes for beneficiaries with social risk factors. These were:

- Commitment to health equity: Value and promote health equity and hold yourself accountable
- Data and measurement: Understand your population's health, risk factors, and patterns of care
- Comprehensive needs assessment: Identify, anticipate, and respond to clinical and social needs
- Collaborative partnerships: Collaborate within and across provider teams and service sectors to deliver care
- Care continuity: Plan care and care transitions to prepare for beneficiaries' changing clinical and social needs

- Engaging beneficiaries in their care: Design individualized care to promote the health of individuals in the community setting

Figure 4.2 shows these in a schematic:

**Figure 4.2: Systems Practices**



Source: National Academies of Sciences, Engineering, and Medicine. Accounting for Social Risk Factors in Medicare Payment; Systems Practices for the Care of Socially At-Risk Populations. Washington, D.C.: National Academies of Sciences, Engineering, and Medicine; 2016.

The Best Practices identified by the NASEM start with and are organized around providing patient-centered (also called person-centered) and community-informed care. Person-centered care is care which is reflective of individuals' goals and values, involves individuals in decision making, and tailors care to their needs. It considers personal goals, preferences, community and family supports, financial resources, and other areas important to the individual. Community-informed care understands and accounts for community context, including physical and social environments, policies,

resources, and opportunities. Around these two core principles are built the six distinct systems practices:

**A. Commitment to Health Equity**

Achieving a commitment to health equity means that health care leaders and staff express a core commitment to valuing and promoting principles of health equity, and accept accountability for reducing inequities. Example implementation strategies include creating a culture of equity through leadership; integrating equity into strategic planning; setting up mechanisms to create and reward accountability; and aligning financial and non-financial resources towards promoting health equity. Such a commitment is not necessarily easy; having equity as a stated value in a health system requires leadership and potentially requires changes in overall organizational culture.

**B. Data and Measurement**

The data and measurement component of improving care for beneficiaries with social risk factors requires that health care providers understand their patterns of performance across different social risk groups, and know how these patterns of performance compare with top-performing peers. Example implementation strategies include collection of data on social risk factors; analysis and monitoring of performance data within risk groups; and having a mechanism to compare this performance with peers. Because beneficiaries with social risk factors tend to be concentrated within a relatively small number of providers (for example, Hispanic beneficiaries are served by a small proportion of Medicare providers overall, due to geographic concentration as well as choices of providers), many providers may be unable to measure disparities with internal data alone (because there would be inadequate sample of either the at-risk or non-at-risk group to calculate disparities in many cases), and instead external benchmarking may be required.

**C. Comprehensive Needs Assessment**

A comprehensive needs assessment is a mechanism to help providers identify, anticipate, and respond to beneficiaries' clinical, social, and community-based service needs. This is a highly personalized assessment, focused on the unique needs of each provider's patient population, and may include local data analysis, interviews, and/or literature searches. The assessment drives the development of programs and practices that are grounded in evidence, but specific to the particular needs of the provider. Example implementation strategies include the use of health assessment tools by beneficiaries to identify each individual's areas of need, as well as analyses of data at the provider level to assess areas of particular strength or opportunity. Data sharing may be necessary to achieve adequate assessment of needs, particularly for beneficiaries with social risk factors; one example is the creation of an information exchange portal for not only clinical providers, but also social service agencies, public health agencies, and community service organizations and HCBS providers to share data on common customers.

**D. Collaborative Partnerships**

Collaborative partnerships are relationships developed to match the needs identified in a comprehensive needs assessment on scope, intensity, and scale, as well as areas of focus. These collaborations may include other providers but may also span multiple service sectors, such as housing,



transportation, and nutrition. Some example implementation strategies include the use of multidisciplinary care teams, the creation of medical neighborhoods or accountable health communities, regional collaborations among providers, or collaborations with other agencies and community organizations. As above, as this is a process dependent on the needs of the beneficiaries in question, effective models of collaboration may differ highly from provider to provider and from community to community.

#### **E. Care Continuity**

Having care continuity requires that providers anticipate and plan for patient trajectories through illness progression, as well as across sites of clinical care, between different providers and organizations, and as it involves non-clinical and/or community-based settings that support health and health care.

Transitions and hand-offs are particularly critical. Example implementation strategies include setting up coordinated care teams, using case managers, care coordinators, or navigators to maintain beneficiary engagement with the primary care team across settings; co-location of clinical and behavioral health services; and the use of new technologies such as the sharing or exchange of priority health data where applicable to achieve these goals.

#### **F. Engaging People in Their Care**

Engaging people in their care attempts to maximize their ability to manage their medical conditions and achieve the most independent functioning possible, while providing support where needed. Example implementation strategies include patient education about self-management and healthy behaviors that is culturally sensitive and appropriately tailored to beneficiaries' needs and ability to comprehend materials; using new technologies to promote healthy behaviors and reduce health risks; and working to engage with beneficiaries in community centers, homeless shelters, religious organizations, schools, and other locations to "meet beneficiaries where they are." Again, the specific components of this type of best practice will be very individualized to any given provider and population.

### **III. Policy Strategies to Enable Best Practices to Caring for Socially At-Risk Beneficiaries**

While each of these strategies is intended to be applied at the provider, practice, hospital, or health system level, some of them in particular lend themselves to being addressed by policy. These are therefore included in this report as key considerations. Specific applications to each program are provided in the program chapters (Chapters 5-13) but overarching strategies are as follows:

#### **A. Value and Promote Health Equity**

Valuing and promoting health equity can be achieved by creating policies that hold providers accountable for achieving equity and rewarding providers that excel in this area. Specific tactics to address this strategy include the creation of a health equity measure or domain, where feasible, within



existing Medicare value-based purchasing programs, as well as the creation of programs to specifically recognize or reward providers that achieve high quality for beneficiaries with social risk factors.

#### **B. Improve Data and Measurement**

Improving data and measurement around social risk factors as well as around patterns of care and outcomes for individuals who are at high social risk can be achieved by creating policies that require data collection that will facilitate these analyses. Specific tactics to address this strategy include enhancing data collection, following uniform structured data capture standards for assessment of social risk, leveraging health IT to improve data capture across care settings, and developing methods to allow analyses stratified by social risk factors.

#### **C. Provide Support for Quality Improvement and Encourage Collaborative Partnerships**

Providing support for quality improvement is a crucial component of reducing disparities and reducing the disproportionate burden of Medicare payment policies on the safety net. Performing comprehensive needs assessments, focusing on care continuity, and engaging beneficiaries in their care are all strategies identified by the NASEM for which the details of implementation will vary substantially from provider to provider. These practices, therefore, may be best incented not through detailed policies, but rather through the formation and support of learning collaboratives and other support mechanisms, including the use of health information technology, that can enable providers to create and employ strategies that will best serve their patient populations.

Another potentially important activity that can potentially be promoted through policy is collaborative partnerships and community engagement. Supporting hospitals or health systems with a high proportion of beneficiaries with social risk factors to collaborate with social service agencies and community organizations may have the potential to significantly improve access to and engagement with health care for beneficiaries who identify as racial and ethnic minorities and those who have low incomes. Practical needs, such as a lack of transportation options, lack of health literacy, difficulty with follow-up, child care needs, etc., are barriers to access and continuation of care, and social service organizations, with greater structural, organizational, and financial support may have the potential to provide critical support to beneficiaries to improve health outcomes and health equity. One current example of such policy-driven change in this area is CMMI's Accountable Health Communities model, which encourages the types of partnerships and community engagement that may lead to lasting change and improved health.

## **IV. References**

1. National Academies of Sciences, Engineering, and Medicine. *Systems Practices for the Care of Socially At-Risk Populations*. Washington, DC: National Academies of Sciences, Engineering, and Medicine;2016.

## SECTION 2: Hospital Value-Based Purchasing Programs

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Currently, there are three hospital value-based purchasing programs that use financial penalties and rewards to incentivize changes in the quality, outcomes, and costs of health care: the Hospital Readmissions Reduction Program (HRRP) and the Hospital Value-Based Purchasing Program (HVBP), for which payment adjustments began to apply starting in fiscal year (FY) 2013, and the Hospital-Acquired Conditions Reduction Program (HACRP), for which payment adjustments began to apply starting in FY 2015.

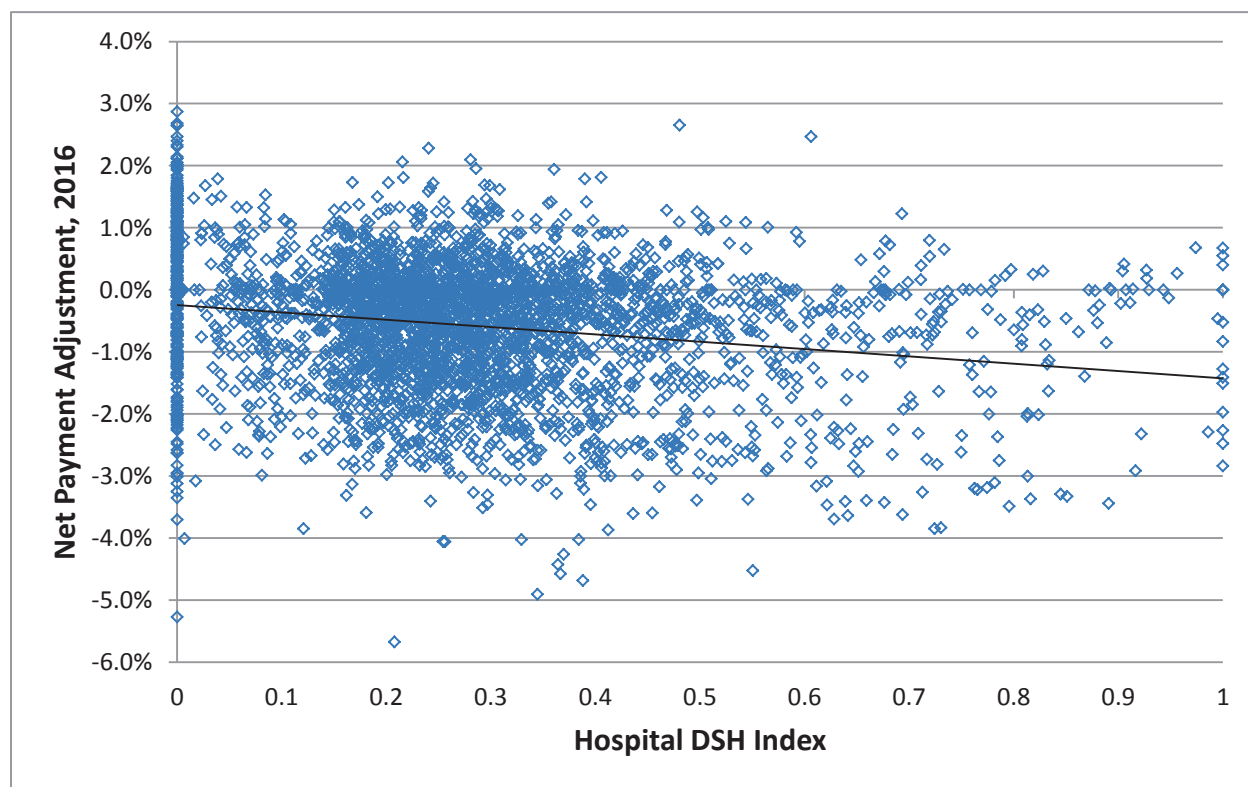
Though in this report they are largely treated independently, in practice they are all acting simultaneously. Table S2.1 shows the specific payments at risk in each year, and the potential maximum penalties levied across the 3 programs.

**Table S2.1 Hospital Payments at Risk in the 3 Hospital Pay-for-Performance Programs**

Program	Focus	FY13	FY14	FY15	FY16	FY17
<b>HRRP (penalties only)</b>	Readmissions	-1%	-2%	-3%		
<b>HACRP (penalties only)</b>	Safety events	N/A	N/A	-1.3%*		
<b>HVBP (penalties or bonuses)</b>	Processes of care, patient experience, efficiency, mortality, safety events	+/- 1%	+/- 1.25%	+/- 1.5%	+/- 1.75%	+/- 2%
<b>Potential Maximum Net Penalty</b>		-2%	-3.25%	-5.8%	-6.05%	-6.3%
* The HACRP reduces a hospital's total IPPS payments instead of reducing a hospital's base-operating DRG payment amounts, which is how the other two programs work. For the purposes of combining the impact of the programs, 1% of total IPPS payments is approximately equivalent to 1.3% of base DRG payments.						

The composite payment adjustment across the three hospital programs was calculated by combining the payment adjustments across the three programs for each eligible hospital (Figure S2.1). In reality, very few hospitals receive the maximal payment reduction in the HRRP and HVBP programs, and only 25% of hospitals receive a penalty in the HACRP, so the largest observed payment reduction in FY 2016 of -5.7% was only levied against one hospital. However, many hospitals received a net payment reduction between 2 and 4% of base-operating DRG payments, and ten hospitals received a penalty between 4 and 6% of base-operating DRG payments. There was a relationship between hospital Disproportionate Share (DSH) index and net penalties, with hospitals with higher DSH index having progressively higher penalties, on average, as shown in Figure S2.1:

**Figure S2.1: Net Financial Impacts of HRRP, HVBP, and HACRP in FY 2016**



However, many hospitals with a DSH Index in the moderate range were able to achieve a net bonus. These results suggest that the chapters that follow should be interpreted not only on their own, but also in the context of their potential combined impact on safety-net and other high-risk hospitals.

## CHAPTER 5: The Hospital Readmissions Reduction Program

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### In This Chapter:

- *Is there a relationship between beneficiary social risk and readmission rates?*
- *Is there a relationship between hospital social risk profile and readmission rates?*
- *Are hospitals that serve a high proportion of beneficiaries with social risk factors more likely to receive penalties under the Hospital Readmissions Reduction Program?*
- *How would potential policy options to address issues of social risk and performance in the Hospital Readmissions Reduction Program affect program penalties?*

This chapter presents findings on the relationship between beneficiary or hospital social risk and performance under the Hospital Readmissions Reduction Program (HRRP), and examines potential policy options for the HRRP.

### Key Findings:

#### Underlying Relationships

- Dually-enrolled beneficiaries had significantly greater odds of readmission than non-dually enrolled beneficiaries even within the same hospitals, an effect that was relatively similar across hospitals participating in the HRRP.
- There was also a significant hospital effect, suggesting that safety-net hospitals have other unmeasured differences in patient characteristics, provide poorer-quality care to prevent readmissions, or face other barriers that might be related to the availability of resources or community supports.

#### Program Impacts

- Under the current readmission measures, the differences between hospitals' risk-standardized readmission rates were much smaller than the differences in raw readmission rates.
- Thus, under the current program using the current risk-adjusted measures, the differences in penalties between safety-net and non-safety-net hospitals were small.

Policy Simulations

- Under the current condition-specific program, direct adjustment for dual enrollment or stratifying hospitals by Disproportionate Share Hospital (DSH) Index and then assigning penalties by strata could significantly close the gap in penalties between safety-net and non-safety-net hospitals.
- Rewarding within hospital improvement over previous years, though appealing philosophically, would not impact penalties for safety-net hospitals, even with a bonus for high DSH Index hospitals.
- Under the current penalty formula, moving to a hospital-wide readmission measure would increase penalties for all hospitals. This would also increase the disparity in penalties between safety-net and other hospitals, both in absolute and relative terms.

**Strategies and Considerations for the HRRP:**

<b>SUMMARY OF STRATEGIES AND CONSIDERATIONS</b>	
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Measure developers should develop readmission measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors, where feasible.
CONSIDERATION 2:	Consider prospectively monitoring for potential unintended consequences. In particular, the cumulative penalties across the three hospital programs for providers that serve beneficiaries with social risk factors should be tracked.
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>	
CONSIDERATION 1:	Readmission measures used in the current program should continue to be examined to determine if adjustment for social risk factors is appropriate.
CONSIDERATION 2:	The use of a hospital-wide readmissions measure for the HRRP should be pursued in the long term, as included in the President's budgets for FY 2017 and FY 2016. However, the hospital-wide measure with the current penalty formula creates larger penalties among a smaller number of hospitals and disproportionately impacts the safety net. Therefore, changes to the penalty formula, or additional strategies such as stratification, should be pursued if this measure is implemented.
CONSIDERATION 3:	Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Consider providing additional financial incentives for achievement of low readmission rates for beneficiaries with social risk factors.
CONSIDERATION 2:	Consider using existing or new quality improvement programs to provide targeted technical assistance for readmissions reduction to providers that serve beneficiaries with social risk factors.
CONSIDERATION 3:	Consider developing demonstrations or models focusing on care innovation that may help reduce readmissions for beneficiaries with social risk factors.

## I. Introduction

### A. Background

This chapter covers research findings on the relationship between social risk and readmissions, presents a set of policy options, and models how these options would impact safety-net hospitals. It focuses on the Medicare Hospital Readmissions Reduction Program (HRRP), which took effect on October 1, 2012, the first day of fiscal year (FY) 2013. Under this program, which was created as part of the Affordable Care Act, hospitals face payment penalties if they have higher-than-expected readmission rates for a key set of conditions common in the Medicare population. The program initially focused on acute myocardial infarction (acute MI), heart failure (HF), and pneumonia, but has now expanded to include chronic obstructive pulmonary disease (COPD), total knee or hip arthroplasty (TKA/THA), and coronary artery bypass grafting (CABG). Program penalties are applied to Medicare base-operating diagnosis-related group (DRG) payments, across hospitals' total Medicare book of business.

The HRRP follows a specific methodology to calculate risk-standardized readmission rates for each hospital in the program. This methodology adjusts for age, sex, and medical comorbidities and uses the statistical technique of multilevel modeling with hospital-specific intercepts so that the model compares a particular hospital's performance on the readmission measure to the average performance of a hospital with the same case mix. The HRRP penalty is based on payments for these higher-than-expected readmissions as a proportion of total payments for all admissions. Thus, the proportion of all payments for the five conditions currently included in the excess readmission calculation is a significant driver of the size of penalties.

In the first year of the program, the maximum penalty was 1% of base DRG payments; in 2014 this maximum penalty rose to 2%, and in 2015 to 3%, where it will remain. Evidence suggests that the program has been successful: from 2007 to 2015, readmission rates for targeted conditions declined from 21.5% to 17.8%, with the majority of the decline seen shortly after the passage of the Affordable Care Act and announcement of the HRRP, followed by a slower decline from 2013 to 2015. Though decreases in readmission rates were seen for both targeted and non-targeted conditions, the declines for targeted conditions were larger.<sup>1</sup>

The appropriateness and desirability of accounting for social risk factors in the HRRP has been the source of significant debate. Some have suggested altering the program to reduce the impact of HRRP penalties on safety-net providers,<sup>2</sup> but these suggestions have been controversial. Proponents of including a measure of socioeconomic status (SES) in the HRRP argue that safety-net hospitals face penalties for outcomes that are beyond their control, pointing out that factors such as the availability of primary care, housing stability, medication adherence, and mental health and substance use disorders impact readmission rates, are not evenly distributed between hospitals, and are not accounted for when judging hospital performance. On the other hand, some worry that accounting for SES in the HRRP program will institutionalize poor performance in the safety-net, sending the implicit message that worse clinical outcomes at these hospitals are acceptable.



### **B. Existing Research on Social Risk Factors and the Hospital Readmissions Reduction Program**

The association between social risk factors and readmission rates is well established. Prior studies have associated social risk factors such as income, race and ethnicity, education, and social support with readmissions at the patient level,<sup>3-10</sup> showing that hospitals with higher proportions of poor and minority beneficiaries have higher readmission rates.<sup>11-13</sup> Studies have also shown that beneficiaries<sup>14-17</sup> and hospitals<sup>18,19</sup> in high-poverty communities have higher readmission rates. Further, safety-net hospitals have a higher likelihood of being penalized under the HRRP, with over 70% of hospitals with the highest proportion of poor beneficiaries nationally receiving a penalty in the program's first year, compared with roughly 40% of hospitals with the fewest poor beneficiaries.<sup>20</sup> Similar findings have been reported for subsequent program years.<sup>21,22</sup> However, some observers have argued that the proportion of the difference between high and low performing hospitals related to social risk factors is small compared to other, less controversial factors, such as unmeasured medical severity. Moreover, the sources of much of the differences in readmission rates between beneficiaries with social risk factors and other beneficiaries is unknown.<sup>23</sup>

In response to these findings, many in the hospital and academic communities have advocated for changes to the HRRP that might take social risk into account.<sup>24-26</sup> Congress has also discussed including social risk factors in the HRRP measures.<sup>f</sup>

### **C. Limitations**

Among the caveats and limitations worth noting in these analyses is the difficulty in ascertaining individual social risk factors due to data limitations, as outlined in Chapter 2. In addition, the risk-standardization technique used in the HRRP has its own limitations: this technique estimates readmission rates that are nearly identical to the average readmission rate for small hospitals, so small hospitals are unlikely to have readmission rates that are much different than expected, no matter what their actual performance. This limitation likely has particular implications for rural providers, which tend to be small. This report is limited to historical performance of the HRRP; as past performance may not perfectly predict future performance, the policy simulations should be interpreted as estimates only. Finally, the analyses in this chapter do not include the CABG readmission measure, as it was only added to the program in fiscal year 2017.

Beyond these technical limitations, the fact that the HRRP is a penalty program in some ways limits the options for program modification. Changes to the HRRP may create additional incentives for hospitals to reduce readmissions, while at the same time removing financial resources necessary to do so. Even for hospitals not facing penalties, if preventing readmissions is more costly for beneficiaries with social risk

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<sup>f</sup> Two bills were proposed in the 113<sup>th</sup> Congress (2013-2014), S.2501, "Hospital Readmissions Program Accuracy and Accountability Act," introduced by Senators Joe Manchin (D-WV), Bill Nelson (D-FL), Mark Kirk (R-IL), and Roger Wicker (R-MS), and H.R. 4188, the "Establishing Beneficiary Equity in the Hospital Readmission Program Act," introduced by Representative Jim Renacci (R-OH).

factors, approaches beyond the HRRP, such as wraparound programs, may be necessary to provide additional resources to prevent readmissions for these beneficiaries.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the readmission measures that comprise the HRRP. Next, it examines the performance of hospitals serving beneficiaries with social risk factors on these measures, focusing particularly on safety-net institutions, and then the performance of these hospitals under the HRRP penalty calculations. It outlines and simulates a set of potential policy options, including adjustment, stratification, and rewarding improvement. Finally, strategies and considerations for the HRRP are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

These analyses examined social risk factors including dual enrollment as a marker of low-income status, local area income, race, ethnicity, and rurality,<sup>8</sup> and found that dual enrollment was the strongest predictor of readmission. The relationships between race or ethnicity and readmission rates were largely mediated by dual enrollment, whereas relationships between rurality and readmission rates were inconsistent (please see the Appendix for full results on these social risk groups). Thus, this chapter will focus primarily on beneficiaries who are dually enrolled in Medicaid and Medicare, a group that includes individuals receiving both full and partial dual benefits. Also included are area-level variables for community social risk factors, such as median income and average educational attainment in the local area. The hospital-level analyses concentrated on safety-net hospitals, defining them as those hospitals that treat a large proportion of poor beneficiaries as indicated by being in the top quintile of the Disproportionate Share Hospital (DSH) Index, and alternatively as the top quintile of hospitals by the proportion of beneficiaries receiving Supplemental Security Income (SSI).

### **A. Beneficiary Characteristics**

Of eligible admissions for the HRRP measures, approximately 22% were for dually-enrolled beneficiaries in fiscal year 2013. Compared to non-dually-enrolled beneficiaries, these individuals had higher rates of dementia, heart failure, chronic kidney disease, depression, diabetes, and other important comorbidities (Table 5.1).

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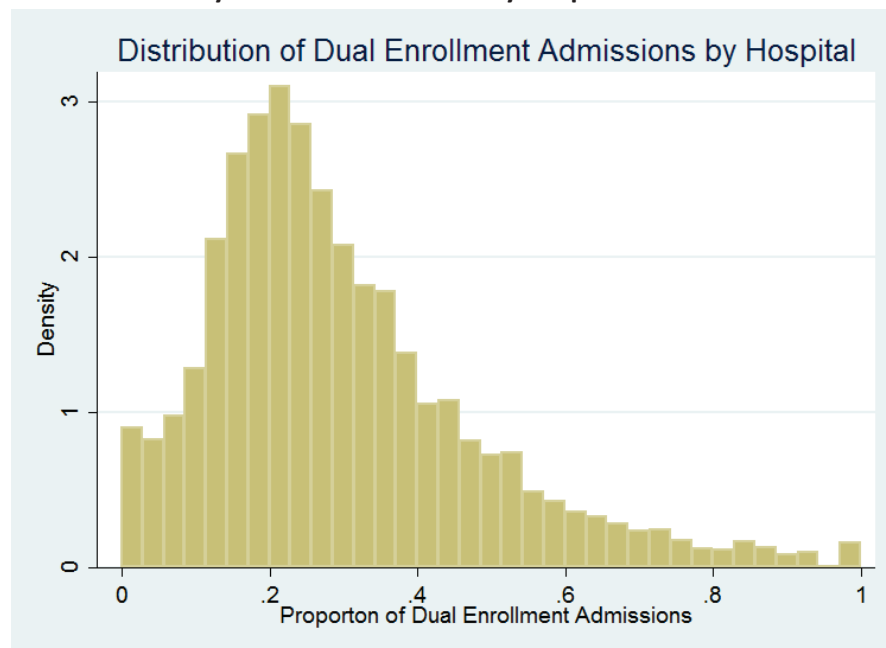
<sup>8</sup> Additional detail on how these social risk factors were defined is included in Chapter 2 and the technical appendix to this chapter.

**Table 5.1. Proportion of Beneficiaries with Select Conditions by Dual Enrollment Status**

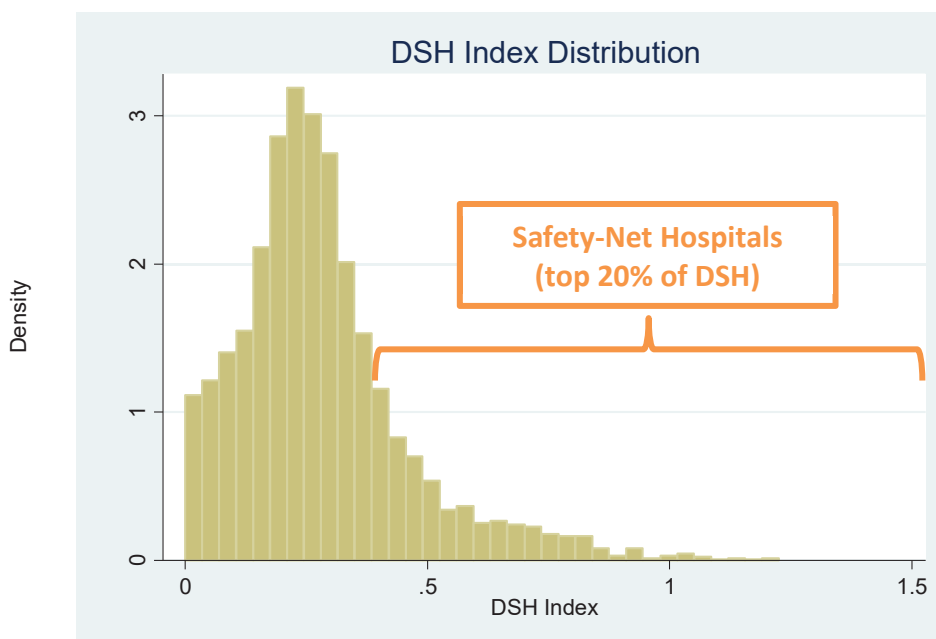
Comorbidity	Dually-enrolled	Not Dually-enrolled
Alzheimer's Disease, Related Disorders, or Senile Dementia	8.6%	4.0%
Heart Failure	17.3%	12.8%
Chronic Kidney Disease	14.4%	10.7%
Chronic Obstructive Pulmonary Disease	12.8%	8.7%
Depression	9.8%	6.2%
Diabetes	14.3%	10.0%
Ischemic Heart Disease	18.3%	15.9%
Osteoporosis	3.9%	3.2%
Stroke/Transient Ischemic Attack	3.4%	2.3%

**B. Provider Characteristics**

The distribution of dually-enrolled Medicare beneficiaries across hospitals shows an average of around 22% and a median of 26% with a long right tail (Figure 5.1).

**Figure 5.1. Distribution of Dually-Enrolled Admissions by Hospital**

Patterns by DSH Index are similar. The top quintile, the cutoff used to determine safety-net status, is shown in Figure 5.2.

**Figure 5.2. Designation of Safety-Net Hospitals**

### III. Beneficiary Social Risk Factors and Readmission Rates

The first analysis initially considered whether beneficiaries with social risk factors have higher readmission rates, and if so, whether the higher rates are primarily related to patient characteristics, or to the hospitals at which these beneficiaries seek care.

#### A. Odds of Readmission for Dually Enrolled Patients

Regression models that isolated the within-hospital effect of dual enrollment to compare outcomes for dual versus non-dual enrollment within hospitals were used to determine whether differences in outcomes for dually enrolled beneficiaries were independent of the hospitals where they sought care. Dual enrollment was associated with 24-67% higher odds of readmission across conditions (Table 5.2, left column). After accounting for clinical risk factors, the impact of dual enrollment substantially lessened (dropping about in half), but was still associated with a 10-31% higher odds of readmission (middle column). This reduction in the odds ratio indicates that there is some correlation between dual enrollment and health status as measured by the HRRP risk adjustment. Adding other social risk factors such as rurality, race, and area characteristics reduced the independent effect of dual enrollment somewhat, but it remained significantly associated with 7-28% higher odds of readmission across conditions (rightmost column). In order to test for residual confounding by proportion dually-enrolled, an additional model included a categorical measure of hospitals' DSH Index. Results did not change substantially in these models.

**Table 5.2. Odds Ratio for Readmission for Dually-Enrolled Patients**

	Dual Enrollment Alone	Dual Enrollment, Adjusting for Comorbidities (Using the HRRP Risk Adjustment)	Dual Enrollment, Adjusting for Comorbidities and Other Social Risk Factors*
Acute MI	<b>1.45</b>	<b>1.14</b>	<b>1.10</b>
Heart Failure	<b>1.24</b>	<b>1.13</b>	<b>1.10</b>
Pneumonia	<b>1.26</b>	<b>1.10</b>	<b>1.07</b>
THA/TKA	<b>1.67</b>	<b>1.31</b>	<b>1.28</b>
COPD	<b>1.44</b>	<b>1.15</b>	<b>1.12</b>

MI=myocardial infarction; THA=total hip arthroplasty; TKA=total knee arthroplasty; COPD=chronic obstructive pulmonary disease. Models include a hospital random effect. \*Model includes the HRRP risk adjustment (age, gender, medical comorbidities); beneficiary measures (rurality, self-reported race; and ZIP code variables (income, education, racial composition, English language proficiency, marital status, employment rate, poverty rate, median home value). Odds ratios greater than 1 indicate increased risk of readmission; odds ratios less than 1 indicate reduced risk of readmission. Bolded odds are significant at p<0.05.

Individuals from low-income areas, as well as Black and Hispanic beneficiaries, were also more likely to be readmitted; rural individuals were less likely to be readmitted. When all social risk factors were entered into a single model, dual enrollment was generally the dominant factor, while the other factors became nonsignificant in many cases (see Appendix).

It is important to note that these models do not reveal *why* dually-enrolled beneficiaries are more likely to be readmitted – an outcome that is likely multifactorial. Higher readmission rates could be attributed to unmeasured or unobserved factors that might be picked up in more detailed measures of social risk (such as social support, health literacy, etc.), unmeasured co-morbidity (including worse functional status, more advanced disease, etc.), availability of community supports after discharge, or differences in the quality of care between dual and non-dual enrollment within the same hospital or after discharge.

### **C. Consistency of Relationship Between Dual Enrollment and Readmission**

The next analysis evaluated the variability of the relationship between dual enrollment and readmissions across hospitals for each of the conditions measured. Regression models that calculated the difference between the odds of readmission for dual and non-dual enrollment at each hospital for each condition were used, with results shown in Figure 5.3 below. The figure shows the distribution of the effect of dual enrollment: 50% of hospitals had an odds ratio of readmission for dual versus non-dual enrollment in the shaded box. For example, for heart attack, 50% of hospitals were between 1.12 and 1.14. For heart failure, the effect was even more consistent: 50% of hospitals are between 1.119 and 1.125. THA/TKA was not included in this analysis due to small sample sizes.

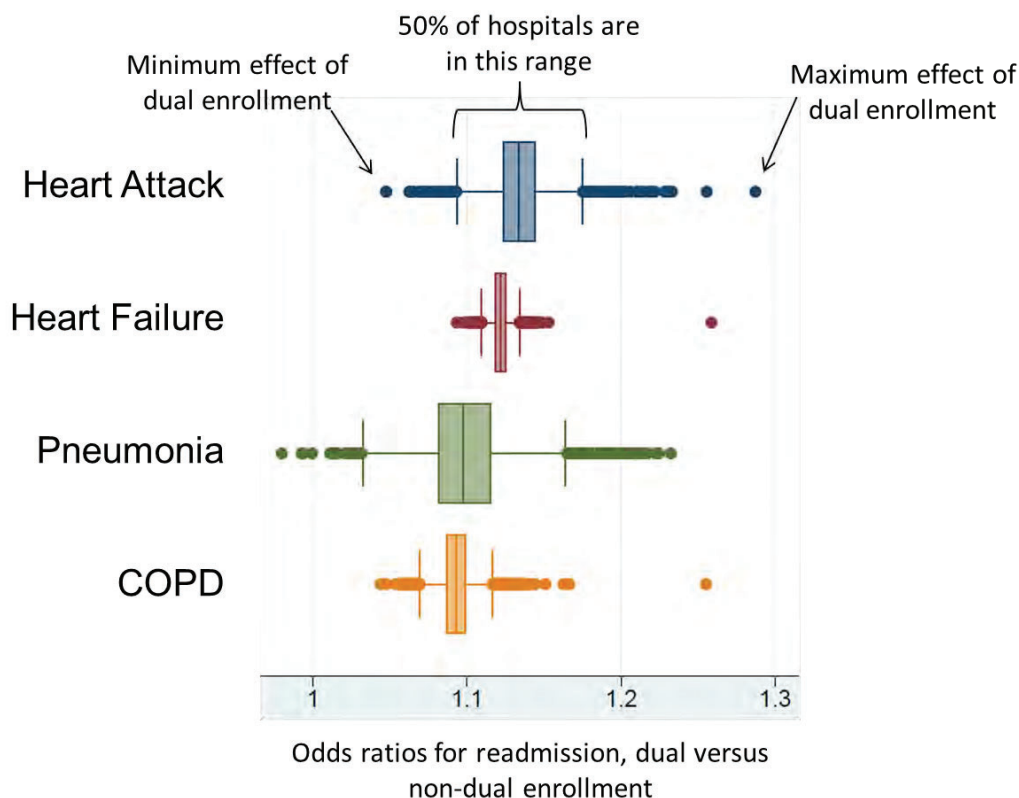
**Figure 5.3. Consistency of Dual Enrollment Effect**

Figure 5.3 demonstrates that the relationship between dual enrollment and readmission was generally consistent across hospitals. For three of the four conditions examined, dually-enrolled beneficiaries were more likely to be readmitted at every hospital in the sample.

#### IV. Provider Social Risk Factors and Readmission Rates

##### A. Odds of Readmission for Safety-Net Hospitals

The relationship between safety-net hospital status, defined as the top quintile of the DSH Index, and the risk of readmissions was evaluated next. Patients seen at safety-net hospitals had 9-20% higher odds of readmission (Table 5.3, left column). After controlling for patient comorbidities, safety-net status remained associated with 9-14% higher odds of readmission (middle column), and after additionally controlling for beneficiary social risk, 5-9% higher odds of readmission (right column).



**Table 5.3. Odds Ratio for Readmission for Patients Discharged from Safety-Net Hospitals**

	Safety-Net Status Only	Safety-Net Status, Adjusting for Comorbidities (Using the HRRP risk adjustment)	Safety-Net Status, Adjusting for Comorbidities, Beneficiary Social Risk Factors, and Hospital Characteristics*
<b>Acute MI</b>	<b>1.20</b>	<b>1.14</b>	<b>1.09</b>
<b>Heart Failure</b>	<b>1.12</b>	<b>1.10</b>	<b>1.06</b>
<b>Pneumonia</b>	<b>1.12</b>	<b>1.09</b>	<b>1.05</b>
<b>THA/TKA</b>	<b>1.09</b>	<b>1.09</b>	<b>1.09</b>
<b>COPD</b>	<b>1.18</b>	<b>1.12</b>	<b>1.06</b>
MI=myocardial infarction; THA=total hip arthroplasty; TKA=total knee arthroplasty; COPD=chronic obstructive pulmonary disease. *Model includes hospital random effects, and includes the HRRP risk adjustment variables (age, gender, medical comorbidities); beneficiary social risk factors (dual enrollment, disability, urban, self-reported race); ZIP code variables (income, education, racial composition, English language proficiency, marital status, employment rate, poverty rate, median home value), and other hospital characteristics (teaching, margin, member of a system, size, urban, and ownership). Odds ratios greater than 1 indicate increased risk of readmission; odds ratios less than 1 indicate reduced risk of readmission. Bolded odds are significant at p<0.05.			

These findings suggest that being discharged from a safety-net hospital was associated with a higher risk of readmission, even after accounting for individual social risk factors. Again, these models do not reveal *why* this is the case; possibilities include unmeasured differences in patient population, differences in the quality of care delivered at safety-net compared to non-safety-net hospitals, or differences in the quality of care these beneficiaries receive after discharge.

#### **D. Comparison of Beneficiary and Provider Social Risk Effect**

The findings presented here suggest a consistent and sizeable within-hospital effect of dual enrollment on readmission rates, which means that even within the same hospital, there is a significant difference between dual and non-dual enrollees in the likelihood of being readmitted. There is also a hospital effect associated with being discharged from a safety-net hospital. Only about half of the difference between safety-net and non-safety-net hospitals was attributable to measured medical and social risk factors, with the remaining almost one-half of the difference unexplained with currently-available data. Therefore, the higher risk of readmission for beneficiaries with social risk factors is in part related to the social risk profile, and in part related to receiving care at lower-quality hospitals; the higher readmission rates seen at safety-net hospitals are in part related to the beneficiary mix and in part due to the hospital's overall performance.

## V. Social Risk and Performance Under the Hospital Readmissions Reduction Program

### A. Hospital Performance

The first step in administering the HRRP is to calculate the risk-standardized readmission rate for each hospital. These rates are shown by group in Table 5.4, again defining safety-net as the top 20% of DSH Index.

**Table 5.4. Risk-Standardized Readmission Rates by Safety-Net Status**

	Safety-Net Hospitals (top 20% of DSH)	Non-Safety-Net (all other) Hospitals	Difference
Acute MI	19.2%	16.5%	2.7%
Heart Failure	23.7%	21.6%	2.1%
Pneumonia	17.9%	16.3%	1.6%
THA/TKA	5.0%	4.5%	0.5%
COPD	16.6%	14.5%	2.1%
MI=myocardial infarction; THA=total hip arthroplasty; TKA=total knee arthroplasty; COPD=chronic obstructive pulmonary disease.			

### B. HRRP Penalties

After calculating risk-standardized readmission rates, CMS uses a complex formula to translate these rates into penalties. Briefly, CMS calculates the ratio of predicted to expected readmissions and labels this the Excess Readmission Ratio (ERR), which represents how much higher (or lower) a hospital's readmission rate is than expected. For example, a ratio of 1.1 would indicate that a hospital's readmission rate was 10% higher than expected. That ratio is then used to calculate the dollars that CMS paid to hospitals for "excess" readmissions. These "excess" dollars are divided by total dollars to yield the final adjustment factor, a number between 0.97 and 1.0 that is used to determine hospitals' penalties. A hospital with an adjustment factor of 0.97 has its payments multiplied by 0.97 – thus leading to a 3% penalty or reduction from what would have been paid with performance at or above the expected readmission rate (see Appendix).

The functional effect of these calculations is to further decrease variability between hospitals, such that relatively large differences in readmission rates translate into much smaller differences in the assessed penalties. Thus, under the current formula, safety-net hospitals are more likely to be penalized (87% versus 81%, Table 5.5), but penalties at safety-net hospitals are similar to those at non-safety-net hospitals as a percent of base DRG payments: 0.48% versus 0.45% (Table 5.5, rightmost column). However, these translate into slightly higher penalties in terms of dollars, at \$191,000 on average for safety-net hospitals versus \$150,000 on average at non-safety-net hospitals, due to the fact that safety-net hospitals tend to be larger than non-safety-net hospitals and thus have higher base DRG payments.

**Table 5.5. Current Penalties Under the HRRP**

	Percent of Hospitals Penalized	Penalty In Thousands of Dollars	Penalty as Percent of base DRG payment
All Hospitals	81%	\$158	0.46%
Safety-Net Hospitals (top 20% of DSH)	87%	\$191	0.48%
Non-Safety-Net (all other) Hospitals	80%	\$150	0.45%

When considering the safety-net to be the top 20% of hospitals by SSI, there were slightly larger differences between groups, with an average penalty in the safety-net of 0.53% of base DRG payment compared to 0.44% of base DRG payment in non-safety-net hospitals.

## VI. Policy Options

### A. Introduction

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 5.6:

**Table 5.6 Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How policymakers weight these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

Five policy options were considered for modifying the current HRRP: keeping the status quo ("status quo"), adjusting for risk ("risk adjustment"), stratifying hospitals into groups ("stratification"), rewarding improvement ("reward improvement"), and moving to a hospital-wide readmission measure ("hospital-wide readmissions"). Table 5.7 describes each of these options. For the most part, these options have been evaluated independently. However, more than one could be implemented together, as is demonstrated with moving to a hospital-wide readmission measure.

Table 5.7. Summary of the HRRP Policy Options

Option	Description	Pros	Cons
<b>1. Status Quo</b>	Maintain the current policy for the HRRP pending further IMPACT studies.	<ul style="list-style-type: none"> <li>Promotes transparency to facilitate consumer choice</li> <li>Promotes reduction in disparities in quality and outcomes</li> </ul>	<ul style="list-style-type: none"> <li>Does not address policy concerns regarding social risk and programmatic impact on providers</li> </ul>
<b>2. Adjust readmission rates for social risk</b>	Add social risk factors to the formula for calculating readmissions.	<ul style="list-style-type: none"> <li>Adjusts only for the difference in performance related directly to the social risk factor</li> <li>May protect providers from unfair financial stress</li> </ul>	<ul style="list-style-type: none"> <li>May discourage reduction in disparities in access, quality, and outcomes compared to the status quo</li> <li>Reduces transparency to facilitate consumer choice</li> <li>May adjust for factors within provider control</li> </ul>
<b>3. Stratify hospitals into groups</b>	Break hospitals into groups based on the proportion of poor patients.	<ul style="list-style-type: none"> <li>Protects providers from unfair financial stress</li> <li>Has stakeholder support including Medicare Payment Advisory Commission (MedPAC)</li> </ul>	<ul style="list-style-type: none"> <li>May adjust for differences in performance beyond the social risk factor</li> <li>May adjust for factors within provider control</li> <li>Tiers are artificial; might create unusual “cliffs.”</li> <li>Might discourage reduction in disparities in quality and outcomes if hospitals performing well on an absolute scale are penalized</li> </ul>
<b>4. Reward improvement</b>	Reward hospitals that improve their performance.	<ul style="list-style-type: none"> <li>Encourages hospitals to provide high quality care to all patients, including those socially at risk, by giving hospitals the chance to reduce penalties by improving, even if absolute performance remains low</li> </ul>	<ul style="list-style-type: none"> <li>Does not adjust for social risk</li> <li>Because hospitals’ performance is judged on a three-year rolling time frame, improvements tend to be minimal</li> </ul>
<b>5. Hospital-wide readmissions</b>	Base penalties on a hospital-wide readmission measure rather than condition specific measures.	<ul style="list-style-type: none"> <li>Promotes reduction in disparities in quality and outcomes</li> <li>Promotes transparency to facilitate consumer choice</li> <li>Uses only one year of data instead of three</li> </ul>	<ul style="list-style-type: none"> <li>Without a change to the payment formula, would greatly increase penalties</li> </ul>

The remainder of this section provides a more detailed explanation of each option, together with results of policy simulations of the proposed policy's potential impact. Additional information on the methodology used for each simulation is in the Appendix to this chapter.

## **B. Status Quo**

Since the HRRP's implementation, there has been concern that it unfairly penalizes safety-net hospitals. Much of this concern may have been due to the observed absolute difference in readmission rates between these institutions and other hospitals. Through the first three years of the HRRP, however, differences in penalties between safety-net and other institutions have been relatively small. CMS's current method of calculating excess readmissions, especially the clinical risk adjustment factors, has minimized differences in readmission rates as they apply to calculating penalties. Indeed, once current risk adjustment factors are accounted for, available measures of social risk only explain a small share of the remaining difference between safety-net and other hospitals. Thus, for the current group of targeted conditions, making modifications to the HRRP may be less urgent in the short run – providing more time to understand the role of social risk factors beyond measures included in current Medicare data. Advocates of the status quo also believe that prior to redistributing penalty dollars; it may be prudent to understand the significant amount of remaining unexplained difference in readmissions between the two sets of hospitals better.

Taking the time to understand these differences better would be particularly useful with respect to the stratification option, which potentially carries the largest redistribution (see below). To the extent the currently unexplained difference is related to factors reasonably beyond the control of hospitals, such as yet unmeasured social risk, such redistribution may be beneficial. On the other hand, if the unexplained difference is related to care processes and quality, such redistribution may provide the wrong incentives for hospitals and would be inconsistent with delivery system transformation goals. Further research authorized by the IMPACT Act will examine additional data sources with more detailed information on beneficiary social risk factors that may contribute to this currently unexplained variation.

An alternative point of view is that existing findings already demonstrate that social risk factors are strongly related to an individual's risk of readmission – with odds ratios similar to or larger than those associated with many of the clinical risk factors in the current risk adjustment models – and thus that accounting for this relationship in some way is warranted to improve the accuracy and fairness of the HRRP. From this perspective, the following policy options might be considered.

## **C. Adjust Readmission Rates for Social Risk Factors**

This option would adjust readmission rates for patient or community social risk factors. The adjustment could be applied directly at the measure level in the same way that adjustments for age, gender, or comorbidities are currently made. Alterations to a measure would likely, though not certainly, require that it re-enter the testing, validation, and approval process with the National Quality Forum.

From a budgetary standpoint, adjusting for patient factors would improve overall performance on the measures and reduce total penalties. To be budget neutral, the penalty calculation would need to be changed or re-scaled.

Two versions of this adjustment have been simulated. The first modeled the impact of adjusting for dual enrollment status at the patient level, without any additional covariates such as ZIP code median income or rurality. This reduced penalties for safety-net hospitals (defined as those in the top 20% by the DSH Index) from \$191,000 under the current penalty to \$169,000 under adjustment on average, with marginal changes for non-safety-net hospitals (Table 5.8). As a percent of base DRG payments, safety-net hospitals would actually receive lower penalties after adjustment than non-safety-net hospitals.

**Table 5.8. Results of Adjusting Readmission Rates for Social Risk Factors**

	Current Penalty			New Penalty (adjusted for dual enrollment only)		
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of base DRG payment	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment
<b>All Hospitals</b>	81%	\$158	0.46%	81%	\$156	0.44%
<b>SNH (top 20% of DSH)</b>	87%	\$191	0.48%	84%	\$169	0.42%
<b>Non-SNH (all other)</b>	80%	\$150	0.45%	81%	\$153	0.45%

Taking patient dual enrollment status into account would remove the gap in penalty percentage by making the percentage penalty for safety-net hospitals smaller than other hospitals, while reducing the disparity in penalty dollars between the two groups. Additionally adjusting for rurality, ZIP code per-capita median income, and ZIP code average education attained would further attenuate the dollar differences between safety-net and non-safety-net (see Appendix), with penalties for safety-net hospitals reduced from \$191,000 to \$151,000 on average. However, as discussed in chapter 3, incorporating ZIP code-level factors into policy may be challenging due to its imprecision and lack of validation.

One downside of any modification to account for social risk factors is that it may make absolute quality differences less visible so that beneficiaries cannot distinguish whether a particular hospital's performance is high quality in an absolute or only a relative sense. However, this issue of transparency could be mitigated by reporting readmission rates that do not account for social risk while paying based on readmission rates that do.

#### **D. Stratification**

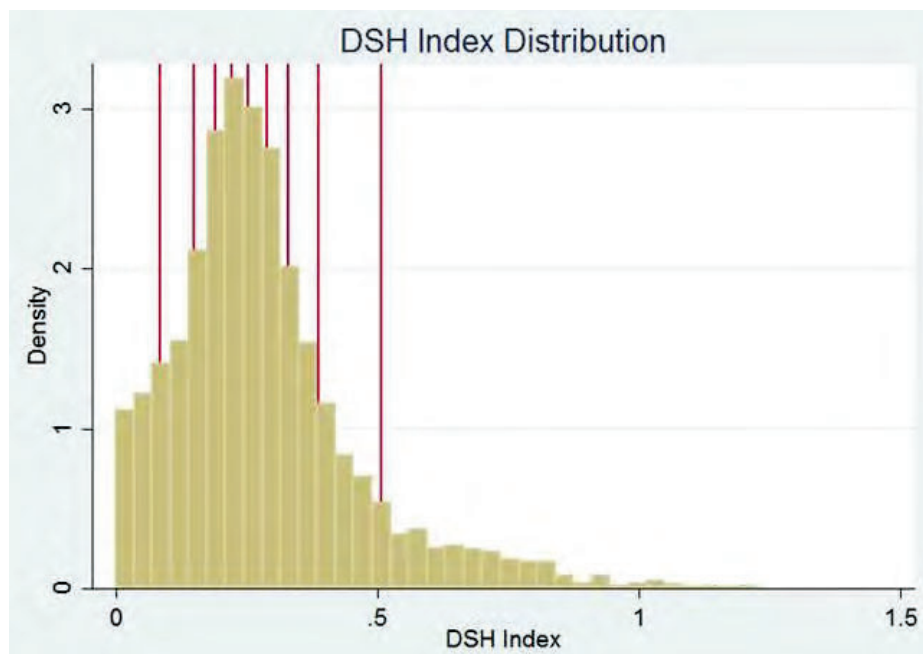
This policy option aims to compare "like with like" by breaking hospitals into two or more groups based on the proportion of dually-enrolled beneficiaries served. Hospitals would be judged only against their peers, and penalties would be assessed based on the average performance within each group rather than the average performance overall. For example, a readmission rate of 16% might be worse-than-average performance if a hospital has very few poor beneficiaries, and might lead to a penalty assessment, while a readmission rate of 16% at a hospital with a very large proportion of poor beneficiaries might be better than average within this group and lead to no penalty.



The benefit of stratification is that it recognizes that there may be unmeasured and possibly unmeasurable differences between hospitals that serve high proportions of beneficiaries with social risk factors and other hospitals, and thus aims to compare similar hospitals to one another. This option is presumably near budget-neutral since it would reassign penalties across groups. The main drawback is that it potentially rewards different absolute levels of performance differently in one group than another. Reducing transparency may also be a drawback, depending on how such a policy were implemented. If only stratified payments were reported, it would be difficult for consumers to evaluate performance. However, if stratification were done after measure calculation, measure scores could be compared between all hospitals even though payment would be decided based on the cutoff points within each stratum.

Two methods for stratifying hospitals into peer groups were evaluated. The first stratification method was into just two groups: safety-net and non-safety-net, using the top quintile of the DSH Index as the stratification cutoff as shown in Figure 5.2. The second method stratified hospitals into ten groups by deciles of DSH Index. The red lines in Figure 5.4 demonstrate where the cutoffs fell along the DSH Index for the decile approach, with the top decile representing a large range of DSH index values. The downside to using two groups is that the groups were more heterogeneous; the downside to using ten groups was the complexity of multiple “cliffs” of performance in which hospitals with relatively similar readmission rates could face different penalties as a result of being in different strata.

**Figure 5.4: Deciles of DSH index**



Stratification into two groups significantly reduced penalties for hospitals in the safety-net (from \$191,000 to \$141,000 on average, Table 5.9) and increased penalties for non-safety-net facilities.

**Table 5.9. Results of Stratification by DSH Index**

	Current Penalty			New Penalty (after stratifying hospitals into 2 groups)		
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG Payment	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG Payment
<b>All Hospitals</b>	81%	\$158	0.46%	81%	\$159	0.47%
<b>SNH (top 20% of DSH)</b>	87%	\$191	0.48%	76%	\$141	0.34%
<b>Non-SNH (all other)</b>	80%	\$150	0.45%	82%	\$163	0.50%

Stratification into deciles by DSH Index similarly reduced penalties for hospitals in the safety-net (from \$191,000 to \$144,000 on average) and increased penalties for non-safety-net facilities (see Appendix).

### **E. Rewarding Improvement**

In contrast to other Medicare pay-for-performance programs, such as Hospital Value-Based Purchasing, the HRRP currently rewards only achievement, not improvement. Rewarding improvement would potentially encourage better performance even among those hospitals unlikely to meet the no penalty threshold. Choosing this option would also be responsive to stakeholder input from hospitals, which have argued that they should have an opportunity to be rewarded for improvement even if they have not yet achieved high quality on an absolute scale.

One drawback, however, is that rewarding improvement does not explicitly address social risk. In particular, if achievement is difficult in a socially at-risk population, improvement may be equally difficult. Since performance under the HRRP is assessed on a three-year rolling average, moreover, improvement tends to be small in any given year. In addition, this option would necessitate changing the penalty calculation for the program to remain budget neutral, since it would decrease overall penalties by reducing them for some hospitals.

In the simulation for this option, hospitals could earn a bonus based on improvement over the prior year. Hospitals that received no penalty because they had met the benchmark for achievement were classified as the “attainment” group and continued to have no penalty. Hospitals that were receiving a penalty received a bonus equal to 50% of their improvement from the prior year – for example, a hospital that improved from a penalty of 2% to 1% would see its penalty reduced by an additional 0.5% as an “improvement bonus.” This bonus only minimally reduced penalties for hospitals in the safety-net (from \$191,000 to \$185,000 on average, Table 5.10) and had a similar impact for non-safety-net facilities. These results suggest that rewarding improvement would have a limited ability to reduce the burden on safety-net hospitals because they are not improving at a faster rate than non-safety-net hospitals. Findings were similar when the improvement bonus was equal to raw improvement multiplied by a hospital’s DSH Index (see the Appendix to this chapter).

**Table 5.10. Results of Rewarding Improvement**

	Current Penalty			New Penalty (after applying an improvement bonus)		
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment
<b>All Hospitals</b>	81%	\$158	0.46%	81%	\$144	0.42%
<b>SNH (top 20% of DSH)</b>	87%	\$191	0.48%	87%	\$176	0.43%
<b>Non-SNH (all other)</b>	80%	\$150	0.45%	80%	\$137	0.42%

In sum, rewarding improvement, while responsive to the concerns of some stakeholders, did not significantly change the distribution of the penalties between safety-net and non-safety-net hospitals. However, it is conceivable that other versions of an improvement bonus might yield different results.

Another way to reward improvement besides changing the penalty formula would be to provide bonuses for hospitals focused on improving readmission rates for beneficiaries with social risk factors, and requiring that such bonuses would be used to improve quality of care for these populations. This could mean that hospitals are able to buy down their penalty if the money is used to improve quality of care for beneficiaries with social risk factors. Or, hospitals that are able to reduce readmission rates for these beneficiaries could receive a bonus that must be used to further improve quality of care.

## **F. Moving to a Hospital-Wide Readmissions Measure**

### **1. Introduction**

Moving to a hospital-wide readmissions measure, namely one that considers all or nearly all hospital discharges rather than only a select set of conditions, has gained significant support in recent years. MedPAC has recommended moving to such a measure;<sup>2</sup> a National Quality Forum-endorsed hospital-wide measure is currently used for quality reporting on Hospital Compare,<sup>27</sup> and all-condition readmission rates are an existing component of the Medicare Shared Savings program<sup>28</sup> and the Physician Value-based payment modifier program.<sup>29</sup> This concept is also included as a legislative proposal in the President's budgets for FY 2016 and FY 2017.<sup>h</sup>

A number of factors make a hospital-wide measure more appealing than current condition-specific measures. First, the hospital-wide measure includes many, though not all, admissions, and thus provides

<sup>h</sup> United States Department of Health and Human Services. Fiscal Year 2016 Budget in Brief. 2015; <http://www.hhs.gov/sites/default/files/budget/fy2016/fy-2016-budget-in-brief.pdf> and United States Department of Health and Human Services. Fiscal Year 2017 Budget in Brief. 2016; <http://www.hhs.gov/sites/default/files/fy2017-budget-in-brief.pdf>.

incentives for improvement across a wider range of medical and surgical conditions (moving from approximately 15% to 55% of hospital payments; note this number does not reach 100% because many admissions are still excluded, including some cancer-related admissions, mental health-related admissions, etc.). Recent research has demonstrated that the decreases in readmission rates after adoption of the HRRP was greater for the three conditions initially targeted by the program, suggesting that casting a wider net might lead to greater overall improvements in outcomes.<sup>1</sup> In addition, because the yearly sample size is larger, a hospital-wide measure can be based on only one year of data instead of three, thus more accurately reflecting improvements in care as they happen and facilitating consumer choice by making publicly-reported rates more comparable to current rates. Furthermore, a single all-condition measure would clarify the program's intent of improving care and reducing costs for all hospitalized Medicare beneficiaries, not just those hospitalized with one of a few target conditions.

A hospital-wide measure also has the potential to include more hospitals because the measure includes a broader range of hospitalized beneficiaries, thus increasing the sample size. However, there is a tradeoff in that the hospital-wide measure is based on one year of admissions, whereas the current condition-specific measure uses three years of data. Analyses based on 2013 admissions suggest that using the hospital-wide measure would have a net gain of less than 1% of hospitals eligible for the program. Thus, the impact of moving to the hospital-wide measure, in terms of additional hospitals participating in the program, would be minor.

One significant impact of a hospital-wide measure could be putting a significantly higher number of dollars at risk for penalties under the statutorily defined payment formula. Since this measure has not yet been formally proposed as a payment program, though, the manner in which penalties would be calculated is as yet unclear. Given growing support for the hospital-wide measure, as well as a lack of prior research examining the relationships between social risk factors and the components of this measure, these issues were examined using a similar methodology for the condition-specific measures. As one possible solution, penalties were scaled to be budget neutral with respect to current penalties.

## **2. Relationship between Social Risk and Performance under a Hospital-Wide Alternative to the HRRP**

To model the hospital-wide alternative to the HRRP, the current HRRP methodology was used to translate the Excess Readmission Ratio (ERR) to penalties. The HRRP uses a hierarchical regression model to account for patient factors and assign a risk-standardized readmission rate for each of five cohorts to each hospital eligible for the HRRP. These rates by safety-net status are shown in Table 5.11. As outlined above, after calculating these risk-standardized readmission rates, CMS then translates them into penalties based on payments for excess readmissions as a proportion of total payments.

**Table 5.8. Risk-Standardized Readmission Rates by Safety-Net Status**

	Safety-Net Hospitals (top 20% of DSH)	Non-Safety-Net (All Other) Hospitals
<b>Hospital-Wide</b>	17.7%	15.6%
<b>Surgical</b>	17.7%	14.4%
<b>Medical</b>	17.4%	15.8%
<b>Cardiovascular</b>	16.4%	15.0%
<b>Cardiorespiratory</b>	20.7%	18.9%
<b>Neurology</b>	19.2%	17.8%

Applying this formula in modeling the hospital-wide option led to two important observations, as shown in Table 5.12. First, moving to a hospital-wide readmission measure would decrease the number of penalized hospitals because the hospital-wide measure condenses all five domains into a single hospital-wide readmission measure. Under the condition-specific measures, each hospital can “win” or “lose” on each of the five measures independently, so the penalties are spread across a greater number of hospitals – some hospitals are penalized based on only one of the five conditions, while others might be in the “lose” category for three of five or even all five. However, under the hospital-wide measure, every hospital only has one chance to win or lose, concentrating the penalties.

Second, moving to a hospital-wide measure with the statutorily defined payment formula would significantly increase the dollar amount of penalties assessed because the current penalty formula is based on the proportion of all payments to a hospital made for excess readmissions for target conditions. Since the condition-specific measures comprise admissions that account for only approximately 15% of hospital payments, payments made for excess readmissions for these conditions add up to a relatively small dollar amount in total. However, the hospital-wide measure includes admissions that account for over half of hospital payments, so even for similar performance on the readmission measure, payments included in the penalty calculation would be much higher. Given this finding, each simulation applied a scaling factor to evaluate how the penalties would look if they were budget-neutral compared to the current program. A scaling factor of 45.8% was used to bring the total penalty dollars back to the level of current penalty dollars.

**Table 5.12. Overall Impact of Moving to a Hospital-Wide Readmission Measure**

	Current Penalty			Hospital-Wide Readmission Penalty			
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	Penalty if Forced Budget Neutral in Thousands of \$
<b>All Hospitals</b>	81%	\$158	0.46%	47%	\$355	0.86%	\$162

### 3. Hospital-Wide Measure Without any Adjustment for Social Risk

Compared to the current condition-specific program, the hospital-wide measure would significantly increase the relative magnitude of penalties at safety-net hospitals versus non-safety-net hospitals (Table 5.13). Applying the current penalty formulas, safety-net hospitals' penalties would more than triple from \$191,000 to \$606,000 on average, compared to an increase from \$150,000 to \$294,000 for non-safety-net hospitals. With a scaling factor forcing the program to be budget-neutral, safety-net hospitals would still see an increase to \$278,000 on average, while penalties would actually drop for non-safety-net hospitals (right-most column in Table 5.13).

**Table 5.13. Results of Moving to a Hospital-Wide Readmission Measure**

	Current Penalty			Hospital-Wide Readmission Penalty			
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG Payment	Penalty if Forced Budget Neutral in Thousands of \$
<b>All Hospitals</b>	81%	\$158	0.46%	47%	\$355	0.86%	\$162
<b>SNH (top 20% of DSH)</b>	87%	\$191	0.48%	66%	\$606	1.32%	\$278
<b>Non-SNH (all other)</b>	81%	\$150	0.45%	42%	\$294	0.75%	\$135

Thus, the disparity between safety-net and non-safety-net hospitals was exacerbated using the hospital-wide measure. In fact, under this measure, safety-net hospitals were penalized nearly twice as much both relatively and in absolute dollars as their non-safety-net counterparts.

Why should this be the case, given that the underlying relationships between social risk and readmissions were generally similar between the hospital-wide domains and the condition-specific groups? As noted above, the explanation lies in the fact that the hospital-wide measure concentrates penalties in a smaller number of hospitals; since safety-net hospitals tend to have higher readmission rates overall, they are significantly more likely to be in the penalized group. Additionally, because the penalties are more concentrated, they are higher at each penalized hospital, even under a budget-neutral scenario.

Given the finding that a hospital-wide measure would disproportionately penalize the safety-net to a significantly greater degree than the current program, the policy alternatives that might be combined with transition to a hospital-wide measure become even more important. Again, three main alternatives were evaluated: risk-adjustment, stratification, and rewarding improvement. The pros and cons of the approaches are addressed above (see Table 5.7).



#### 4. Adjust Hospital-Wide Readmission Rates for Social Risk

Two versions of adjustment were simulated. In the first, adjusting for the impact of dual enrollment status at the patient level, penalties for safety-net hospitals (defined as those in the top 20% by the DSH Index) were reduced from an average of \$606,000 under the hospital-wide option to \$568,000, with very marginal changes for non-safety-net hospitals (Table 5.14). However, unlike adjustment to the condition-specific measures, a significant disparity in penalty remained under the hospital-wide measure, at least partially due to the more significant disparity in the penalties before adjustment.

**Table 5.14. Results of a Hospital-Wide Penalty and Adjustment for Dual Enrollment Status**

	Hospital-Wide Readmission Penalty				Hospital-Wide Readmission Penalty PLUS adjustment for dual enrollment only			
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG Payment	Penalty if Forced Budget Neutral in Thousands of \$	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG Payment	Penalty if Forced Budget Neutral in Thousands of \$
<b>All Hospitals</b>	47%	\$355	0.86%	\$162	47%	\$354	0.83%	\$163
<b>SNH (top 20% of DSH)</b>	66%	\$606	1.32%	\$278	64%	\$568	1.19%	\$261
<b>Non-SNH (all other)</b>	42%	\$294	0.75%	\$135	43%	\$302	0.75%	\$139

Adjusting for rurality, ZIP code per-capita median income, and ZIP code average education further attenuated the differences between safety-net and non-safety-net hospitals. Penalties for safety-net hospitals were reduced on average from \$606,000 under the hospital-wide option to \$528,000, though large differences between safety-net and non-safety-net hospitals remained both in dollars and in percent penalty (1.12% versus 0.71%).

In sum, taking patient dual enrollment status or other socioeconomic variables into account would reduce but not eliminate the sizeable gap between safety-net and non-safety-net hospitals under a hospital-wide readmissions measure.

#### 5. Stratify Hospitals when Applying a Hospital-Wide Readmission Measure

As with the condition specific penalties, ERRs were standardized within each stratum and penalties were assessed using the current HRRP penalty formula. As shown in Table 5.15, stratifying hospitals into two groups, safety-net and non-safety-net, using the top quintile of the DSH Index as the stratification cutoff, significantly reduced penalties for hospitals in the safety-net (from \$606,000 to \$398,000 on average) and significantly increased penalties for non-safety-net facilities. Stratifying hospitals into ten groups by decile of DSH index had a similar impact.

**Table 5.15. Results of a Hospital-Wide Readmission Penalty and Stratification**

	Hospital-Wide Readmission Penalty				Hospital-Wide Readmission Penalty PLUS Stratification into Two Groups			
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	Penalty if Forced budget neutral in Thousands of \$	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	Penalty if Forced Budget Neutral in Thousands of \$
<b>All Hospitals</b>	47%	\$355	0.86%	\$162	47%	\$358	0.88%	\$162
<b>SNH (top 20% of DSH)</b>	66%	\$606	1.32%	\$278	43%	\$398	0.77%	\$180
<b>Non-SNH (All Other)</b>	42%	\$294	0.75%	\$135	49%	\$348	0.91%	\$158

Stratification was thus effective at redistributing penalties more evenly between safety-net and non-safety-net hospitals. Under a hospital-wide plus stratification approach, safety-net hospitals had higher penalties in dollars, but lower penalties in terms of percent of base DRG payments.

#### **6. Reward Improvement on the Hospital-Wide Readmission Measure**

Improvement, as described above, was modeled by giving hospitals a bonus equal to 50% of their improvement from the prior year. This option somewhat reduced penalties for hospitals in the safety-net (from \$606,000 to \$512,000 on average) and had a slightly lesser impact for non-safety-net facilities.

**Table 5.16. Results of a Hospital-Wide Readmission Penalty and Improvement Bonus**

	Hospital-Wide Readmission Penalty				Hospital-Wide Readmission Penalty PLUS Bonus for Improvement			
	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	Penalty if Forced budget neutral in Thousands of \$	% of Hospitals Penalized	Penalty in Thousands of \$	Penalty as % of Base DRG payment	Penalty if Forced Budget Neutral in Thousands of \$
<b>All Hospitals</b>	47%	\$355	0.86%	\$162	47%	\$308	0.73%	\$163
<b>SNH (Top 20% of DSH)</b>	66%	\$606	1.32%	\$278	66%	\$512	1.08%	\$270
<b>Non-SNH (All Other)</b>	42%	\$294	0.75%	\$135	42%	\$259	0.64%	\$136

In contrast to the condition-specific measure, the finding that rewarding improvement helped safety-net more than non-safety-net hospitals under this option suggests that safety-net hospitals may be improving at a faster rate on the hospital-wide metric. However, penalties for safety-net hospitals remained significantly higher than non-safety-net hospitals even with this added bonus.

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

- Underlying relationships
  - Dually-enrolled beneficiaries had significantly greater odds of readmission than non-dually-enrolled beneficiaries within hospitals, an effect that was relatively similar across hospitals.
  - There was also a significant hospital effect, suggesting that safety-net hospitals have other unmeasured differences in beneficiary characteristics, provide poorer-quality care to prevent readmissions, or face other barriers that might be related to the availability of resources or community supports.
- Program Impacts
  - Under the current risk adjusted readmission measures, the differences between hospitals' risk-standardized readmission rates were much smaller than the differences in raw readmission rates.
  - Thus, under the current program using the current risk-adjusted measures, the differences in penalties between safety-net and non-safety-net hospitals were small.
- Policy simulations
  - Under the current condition-specific program, direct adjustment for dual enrollment or stratifying hospitals by Disproportionate Share Hospital (DSH) Index and then assigning penalties by strata could significantly close the gap in penalties between safety-net and non-safety-net hospitals.
  - Rewarding within hospital improvement over previous years, though appealing philosophically, would not impact penalties for safety-net hospitals, even with a bonus for high DSH Index hospitals.
  - Under the current penalty formula, moving to a hospital-wide readmission measure would increase penalties for all hospitals. This would also increase the disparity in penalties between safety-net and other hospitals, both in absolute and relative terms.

### B. Strategies and Considerations

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors.

#### STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Measure developers should develop readmission measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors, where feasible.**

Readmission rates stratified by social risk should be developed and considered for hospital preview reports and public reporting in places such as Hospital Compare, so that hospitals, health systems, policymakers, and consumers can see and address important disparities in care. This could include, for example, reporting readmission rates for dual and non-dual admissions for each hospital. In terms of the policy criteria, stratified public reporting may encourage poor performing providers to reduce disparities in quality and outcomes, and promotes transparency to facilitate consumer choice.

**CONSIDERATION 2: Consider prospectively monitoring for potential unintended consequences. In particular, the cumulative penalties across the three hospital programs for providers that serve beneficiaries with social risk factors should be tracked.**

Prospectively monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change. For the hospitals in particular, although penalties from a single program may be small, the additive penalties across all three programs may be significantly larger. Thus, monitoring should include financial consequences of the HRRP as well as cumulative performance across the hospital programs.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: Readmission measures used in the current program should continue to be examined to determine if adjustment for social risk factors is appropriate.**

In terms of the HRRP penalties, the first question is whether anything should be changed at all. The differences in penalties between safety-net and non-safety-net hospitals are small under the current system; while MedPAC and others have raised concern about other technical elements of the program, the differences based on social risk may not be large enough to warrant intervention. Based on the analyses in this report, adjusting readmission rates for social risk would not result in a significant gain in assessing quality or providing consumer information. CMS reports excess readmission rates which are already adjusted for clinical factors associated with social risk, and thus further adjustment for current social risk measures such as dual status would not change providers' performance on the measures substantially.

Additionally, there is concern that adjusting the readmissions measures for social risk could mask disparities and, depending on how the adjustment were performed, excuse low-quality care on the part of some providers. However, either direct adjustment for dual enrollment or stratification by social risk would potentially make comparisons more equitable, particularly for the small group of hospitals serving very large proportions of dually-enrolled beneficiaries. Both of these strategies account for differences in social risk, but, in terms of the policy criteria, only direct adjustment adjusts only for the difference in performance related directly to dual enrollment, and both may risk inadvertently over-adjusting for factors within provider control, such as bias or discrimination. These options may discourage reductions

in disparities in quality and outcomes, as compared to the status quo, by reducing the financial impact if dually enrolled beneficiaries have higher readmission rates than other beneficiaries. Finally, penalties that result from adjusting for dual enrollment or stratifying hospitals may mask actual performance and reduce transparency.

On the other hand, the within-hospital differences between readmission rates for dually enrolled and other individuals are real and significant, and some portion of the effect may be outside the control of the hospital. Some may therefore feel that the program should be modified even if it would not lead to large changes in penalty assignments. That is, while the current program indirectly accounts for social risk to some extent by its correlation with health status, some policy makers may find a direct adjustment preferable. If any changes to the current program are pursued, continuous monitoring for unintended consequences would be necessary.

Study B will continue to study an expanded set of social risk factors to determine whether they would alter these findings.

**CONSIDERATION 2: The use of a hospital-wide readmissions measure for the HRRP should be pursued in the long term, as included in the President’s budgets for FY 2017 and FY 2016. However, the hospital-wide measure with the current penalty formula creates larger penalties among a smaller number of hospitals and disproportionately impacts the safety net. Therefore, changes to the penalty formula, or additional strategies such as stratification, should be pursued if this measure is implemented.**

Given its broader potential impact and methodological advantages, as well as its symmetry with measures used in the ACO, outpatient, and post-acute settings, a hospital-wide readmissions measure should be adopted in the long term. The hospital-wide measure may be conceptually appealing because it is based on a single readmission rate, uses only one year of admissions to generate hospital wide rates, and incents improvement for a broader group of Medicare beneficiaries. In terms of the policy criteria, penalizing hospitals on readmission performance for a larger proportion of beneficiaries would encourage them to reduce disparities in quality and outcomes for all beneficiaries. Hospital-wide readmission measures are also a more accurate measure of overall hospital quality, and as such would promote transparency to facilitate consumer choice.

However, given the impact of the hospital-wide measure on the safety net as currently constructed, it should not be implemented without significant alteration either to the measure or the penalty formula. Because of the “win-lose” nature of the single hospital-wide measure and the greater proportion of dollars at risk, moving to this measure would increase penalties significantly and markedly for safety-net hospitals both in absolute and relative terms. Improvement of the characterization of medical risk may reduce the disproportionate burden on the safety net, and changes to the hospital-wide readmission measure could address this. Another option would be to change the penalty formula. Of the policy options considered (adjustment, stratification, and rewarding improvement), only stratification

ameliorated this disparity in any significant way. Therefore, if the current hospital-wide measure is pursued, one option would be to implement it under a stratified penalty scheme.

**CONSIDERATION 3: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

While the analyses in this report demonstrated disparities by dual enrollment in particular, they did not reveal the reasons for those disparities. Even after accounting for measurable comorbidities, beneficiary social risk factors, and hospital characteristics, beneficiaries at safety-net hospitals had a 5-10% increased likelihood of being readmitted, which represents about half of the increase in the raw rate. To the degree that the remaining disparity is due to differences in medical risk, functional status, frailty, or other factors beyond hospitals' control, all of which are more common in dually-enrolled populations, the measures could be made fairer by an improved accounting for these issues. To that end, further study should be undertaken to understand whether the readmission measures could be made more robust in terms of their ability to account for severity of illness, patient frailty, disability, or functional status; this will be a focus of Study B from this project as well. This is consistent with the policy criteria of adjusting only for the difference in performance related directly to the social risk factor and adjusting only for what is beyond providers' control, and would allow these to be achieved in the future.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives for achievement of low readmission rates for beneficiaries with social risk factors.**

Achievement and/or improvement in high-risk populations should be rewarded, and this could be done by adding targeted payment adjustments to existing value-based purchasing programs such as the HRRP. Such opportunities would also help counteract any disincentives under value-based or alternative payment models to caring for high-risk populations. This approach has the potential to provide further incentives for improvement for populations that currently have particularly poor outcomes, and to incent a reduction in disparities more broadly.

While such an adjustment would need to be developed and modeled, there are examples of how one could be constructed. The current Physician VM program, for example, provides an additional payment adjustment for physician practices that serve a high proportion of medically complex beneficiaries if

they meet the threshold for an upward payment adjustment – practices with highly complex beneficiaries can thus receive additional financial incentives for good performance. Such an adjustment could be mirrored for hospitals that serve a high proportion of beneficiaries with social risk factors. Alternatively, a payment adjustment that focused specifically on achieving high outcomes or significant improvement for beneficiaries with social risk factors, regardless of where they seek care, could focus attention and potentially spur innovation in thinking about ways to reduce readmissions in this group.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance for readmissions reduction to providers that serve beneficiaries with social risk factors.**

It is also important to recognize that the raw rates of readmissions in beneficiaries with social risk factors are significantly and meaningfully higher than those for more advantaged populations, thus representing an important opportunity to improve clinical outcomes for these groups regardless of changes to the HRRP penalties. Indeed, reducing readmission rates at safety-net hospitals would be the most direct and lasting way to reduce the financial burden of the HRRP for these institutions.

Already, CMS' Quality Improvement Organizations (QIOs) and Quality Improvement Networks (QINs), Community-based Care Transitions Program, and the Partnership for Patients have separately worked to reduce readmissions. QIN-QIOs are taking a community approach to reduce readmissions by convening community providers and stakeholders to come together to improve the quality of care including transitions for the population of individuals that they serve in the community. These QIN-QIOs are existing resources that could coordinate efforts to disseminate best practices across hospitals and provide support for quality improvement initiatives going forward. A peer to peer program could pair higher performing facilities with poor performers to improve their quality of care. Alternatively, a new program, such as a readmission reduction collaborative, could focus specifically on reducing readmissions in low performing hospitals, safety-net hospitals, or all hospitals.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovation that may help reduce readmissions for beneficiaries with social risk factors.**

Beneficiary-directed programs could include consideration of demonstration projects aimed at dually-enrolled individuals, modeled on the successes found in Medicare Advantage plans that have focused on integrating benefits and supports across Medicare and Medicaid to support beneficiaries with social risk factors, or on efforts at increasing community engagement and connectivity such as CMMI's Accountable Health Communities.<sup>2,31</sup> Given that there is a growing body of evidence supporting care coordination, social work, visiting nurse, and patient engagement/self-management programs to help reduce readmissions,<sup>32</sup> these services could be explored for additional or enhanced coverage for appropriate groups. Finally, specialized services, such as the transitional care services provided by an outside entity in the Community-based Care Transitions Program, could be targeted either to



beneficiaries with social risk factors or poor performing hospitals.

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# CHAPTER 6: The Hospital-Acquired Conditions Reduction Program

## In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on the safety measures that comprise the Hospital-Acquired Conditions Reduction Program (HACRP)?*
- *Is there a relationship between hospital social risk profile and performance on the safety measures that comprise the program?*
- *Are hospitals that serve a high proportion of beneficiaries with social risk factors more likely to be penalized under the HACRP?*
- *How would potential policy options to address issues of social risk and performance in the HACRP affect penalties?*

This chapter presents findings on the relationship between social risk and performance under the Hospital-Acquired Conditions Reduction Program (HACRP), and examines policy options for the HACRP:

## Key Findings:

### Underlying Relationships

- Both beneficiary social risk (dual enrollment, disability as the original reason for Medicare entitlement, and Black race) and hospital makeup (highest quintile of disproportionate share hospital (DSH) payments, beneficiaries with disabilities, or beneficiaries identified as Black) were associated with higher rates of patient safety events in the PSI-90 measure, suggesting both beneficiary and hospital factors contribute to patient safety events.

### Program Impacts

- Safety-net hospitals (defined as those in the top quintile of DSH Index) and hospitals with a higher proportion of Black beneficiaries were more likely to be penalized under the HACRP.

### Policy Simulations

- Risk-adjusting the PSI-90 measure for beneficiary social risk and/or unmeasured medical complexity had minimal impact on penalties, as the PSI-90 makes up only a small portion of hospitals' total score under the HACRP.
- Adjusting CDC's Hospital-Acquired Infection measures at the hospital level for DSH Index as a proxy for beneficiary social risk, and average HCC scores as a proxy for medical complexity, reduced the differences in penalty status between safety-net and non-safety-net hospitals.

- Stratifying hospitals into two groups (safety-net and non-safety-net) to determine penalties equalized the proportion of hospitals penalized by safety-net status.
- Restructuring the program to a linear penalty performance and basing penalty calculations on base DRG payments instead of total IPPS payments reduced the likelihood of penalties for the safety-net and reduced their average penalty dollars.
- Rewarding improvement had a limited impact on penalties.
- Changes to the program finalized by CMS in the FY 2017 Hospital Inpatient PPS Final Rule (81 Fed. Reg. 162), which include harms-based weighting in the modified PSI-90 and winsorized z-scores, are expected to lead to higher penalty rates for safety-net hospitals, but better reflect performance differences and the severity of harms from safety events.

### Strategies and Considerations for the HACRP

<b>SUMMARY OF STRATEGIES AND CONSIDERATIONS</b>	
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key patient safety and infection measures.	
CONSIDERATION 2: Consider prospectively monitoring for potential unintended consequences of the HACRP; the cumulative penalties across the three hospital value-based purchasing programs should be tracked for hospitals that disproportionately serve beneficiaries with social risk factors.	
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>	
CONSIDERATION 1: Patient safety measures used in the current HACRP should continue to be examined to determine if adjustment for social risk factors is appropriate.	
CONSIDERATION 2: The HACRP should be updated with AHRQ's revised PSI-90 measure, as CMS plans to do in FY2018.	
CONSIDERATION 3: Consider restructuring the HACRP to minimize differential impacts on hospitals disproportionately serving beneficiaries with social risk factors and incent improvement along the continuum of performance by determining penalties using base DRG payments and using a linear penalty scale rather than a binary penalty, with a continuous scoring approach, as included in the President's FY 2016 budget.	
CONSIDERATION 4: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers. In particular, patient-level clinical data from the CDC healthcare associated infection measures should be examined and considered for risk adjustment. A long-term alternative would be to develop alternate safety measures such as all-harms measures using EHR data.	
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1: Consider providing additional financial incentives for hospitals that achieve low patient safety event rates and/or infection rates among beneficiaries with social risk factors.	
CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted	

technical assistance to providers that serve beneficiaries with social risk factors.

CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations to achieve low patient safety event rates and/or infection rates for beneficiaries with social risk factors.

## I. Introduction

### A. Background

The Hospital-Acquired Conditions Reduction Program (HACRP) is a Medicare pay-for-performance program focused on reducing the incidence of infections and other adverse safety events in U.S. hospitals. The program was created in Section 3008 of the 2010 Patient Protection and Affordable Care Act (ACA), and its first payment year was fiscal year (FY) 2015.

Hospitals' performance is quantified by the Total HAC Score, which reflects performance on various patient safety measures. Hospitals' Total HAC Scores are translated into financial penalties in the pay-for-performance program by identifying the 25 percent of hospitals with the worst scores. These hospitals are penalized a flat 1% on their total inpatient Medicare revenues, which includes base diagnosis-related group (DRG) payments as well as add-ons like disproportionate share hospital (DSH) payments and payments for medical education.

The Total HAC Score is based on hospital's performance on patient safety measures and healthcare associated infections in two domains. Domain 1 includes a composite measure of adverse patient safety events, called Patient Safety Indicators (PSI-90), developed by the Agency for Healthcare Research and Quality (AHRQ). Domain 2 includes healthcare associated infection measures developed by the Centers for Disease Control and Prevention (CDC), such as blood-stream associated infections. Domain 2 weighting increases over time, making healthcare associated infections the most important component of the program. Table 6.1 summarizes the domain weighting since the start of the program in FY2015.

**Table 6.1. HAC Reduction Program Domain Weights, by Year**

Domain Weights	HAC Reduction Program – Payment Year		
	FY15	FY16	FY17
<b>Domain 1 (PSI-90 measures)</b>	35%	25%	15%
<b>Domain 2 (CDC infection measures)</b>	65%	75%	85%

Domain 1, the patient safety domain, is comprised of a set of 8 claims-based patient safety indicators, reported together as the PSI- 90 composite measure. The PSIs represent a variety of events, ranging from accidental cuts and lacerations to post-operative hip fractures or collapsed lungs. Hospital performance is risk-adjusted for beneficiaries' medical comorbidities. The eight indicators are also weighted based on the volume of cases, so that hospitals' performance on the current PSI-90 composite measure mainly reflects relatively minor accidental punctures and lacerations, which are quite common (PSI-15 – weighted 49%) and serious blood clots after surgery (PSI-12 - weighted 26%, Table 6.2).

**Table 6.2: Patient Safety Indicators and Composite Measure Weights (PSI-90 version 4.5)**

PSI	Name	Meaning	Weight
<b>PSI-3</b>	Pressure Ulcer	Bedsore	2.3%
<b>PSI-6</b>	Iatrogenic Pneumothorax	Collapsed lung	7.1%
<b>PSI-7</b>	Catheter-Related Blood Stream Infection	Infection related to an intravenous line	6.5%
<b>PSI-8</b>	Postoperative Hip Fracture	Broken hip after surgery	0.1%
<b>PSI-12</b>	Perioperative Pulmonary Embolism or Deep Vein Thrombosis	Serious blood clot after surgery	25.8%
<b>PSI-13</b>	Postoperative Sepsis	Serious, widespread infection after surgery	7.4%
<b>PSI-14</b>	Postoperative Wound Dehiscence	Surgical wound that splits open after surgery	1.7%
<b>PSI-15</b>	Accidental Puncture or Laceration	Accidental cut sustained during surgery	49.2%

As noted above, in the FY2015 payment year, Domain 1 contributed 35 percent of the Total HACRP Score, but this will decrease by 10 percent each year, down to 15 percent in the FY2017 payment year.

Domain 2, the healthcare-associated infections domain, is comprised of Standardized Infection Ratios (SIRs) reported by hospitals to the Centers for Disease Control and Prevention (CDC) National Healthcare Safety Network (NHSN). These infections include catheter-associated urinary tract infections (CAUTI) and central-line associated bloodstream infections (CLABSI); in FY 2016 surgical site infection (SSI) for colon surgeries and abdominal hysterectomy were added to the domain. In subsequent years (FY2017 and onwards), rates of methicillin-resistant staph aureus (MRSA) and clostridium difficile (C. diff) infections will also be measured. These measures are collected at the beneficiary level, but reported to CMS and risk-adjusted at the facility level. The risk adjustment for the CDC measures includes facility-level characteristics such as ward type, teaching status, and hospital size.

As noted above, in the FY2015 payment year, Domain 2 contributed 65 percent of the Total HACRP Score, which will increase by 10% each year to 85% of the total score by FY2017.<sup>1</sup> (See the Appendix to this chapter for complete information on measures and domain weights by year.)

The CDC recently reported that between 2008 and 2013, CLABSI rates have decreased by 46%, and that there have also been reductions in MRSA infections (down by 8%), surgical site infections (down by 14% for hysterectomy and 8% for colon surgery), and C. difficile infections (down by 10%).<sup>2</sup> During that same time frame, CAUTI rates increased by 6% nationally. Since the HACRP program did not begin assessing penalties until FY 2015, there has not been sufficient time to observe if the program has led to further changes in these infection rates.

Despite these findings, early experience with the HACRP has demonstrated that teaching hospitals, hospitals that serve a medically complex population (defined as those in the highest quartile of hospitals' case mix index, a measure of medical complexity), and safety-net hospitals (defined as those in the highest quintile of DSH index) were more likely to be penalized under the current program. This



has raised concern that the HACRP might be disproportionately affecting hospitals that care for sicker beneficiaries and / or beneficiaries with social risk factors.<sup>3</sup>

The question, of course, is whether these differences in performance are due to differences in underlying population that may be beyond hospitals' control, or whether differences in performance are due to hospital factors, such as infection control practices. This chapter outlines research findings on the relationship between beneficiary and hospital social risk and performance under the HACRP, presents a set of policy options to address any identified disparities, and simulates potential policy options to predict how they would impact hospitals that disproportionately serve socially high-risk beneficiaries.

#### **B. Existing Research on Differences in Patient Safety Events Related to Social Risk**

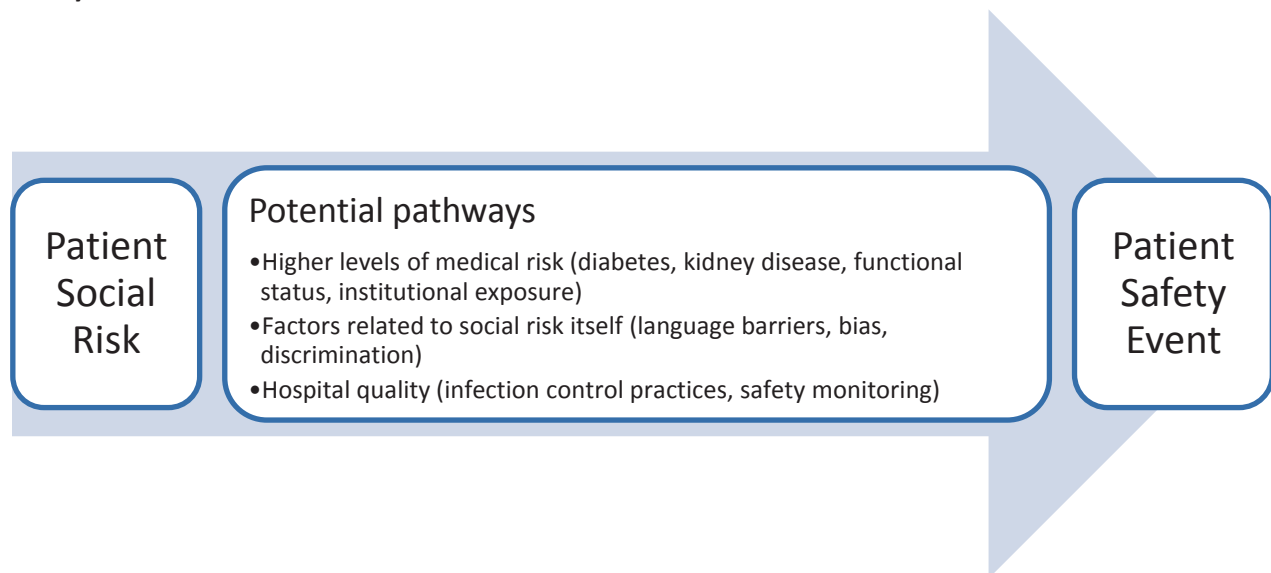
It is well-proven that higher levels of medical risk are associated with a higher risk for many (though not all) patient safety events, particularly infections. For example, diabetes is associated with roughly 70% higher odds of surgical site infections;<sup>4</sup> and diabetes, pulmonary disease, renal failure, and exposure to nursing homes are associated with a higher risk of MRSA.<sup>5</sup> Many of the same medical factors also confer a higher risk of C. diff infection,<sup>6</sup> as well as CAUTI<sup>7</sup> and CLABSI.<sup>8</sup>

The relationship between social risk and patient safety events, however, is more controversial. Studies have demonstrated that social risk and patient safety events are related: for example, one recent study, using National Inpatient Sample data, examined within-hospital effects and showed that PSIs were more common in poor, Medicaid patients.<sup>9</sup> Another study found that in stroke patients, both PSIs and hospital-acquired infections were more likely in Medicaid than privately insured patients, even within the same hospitals.<sup>10</sup>

However, the mechanism by which this takes place is poorly understood. There is minimal evidence that social risk factors are directly causative of patient safety events; however, mechanisms have been postulated for what may underlie this relationship. There are three main pathways by which social risk might be related to patient safety events: medical risk, social risk, and hospital quality. These are outlined in the conceptual model below, and each pathway is discussed in the paragraphs that follow:



**Figure 6.1 Conceptual model of relationship between beneficiary social risk and risk of inpatient safety events or healthcare associated infections**



The first potential pathway, in which social risk is related to outcomes via higher levels of medical risk, is one possible explanation for the observed higher patient safety event rates in beneficiaries with social risk factors, though direct evidence is lacking. Factors such as diabetes, pulmonary disease, renal failure, immunodeficiency, and exposure to nursing homes are all more common in the poor, and as noted above, are related to a higher risk of MRSA,<sup>5</sup> C. diff infection,<sup>6</sup> CAUTI<sup>7</sup> and CLABSI.<sup>8</sup> Similarly, studies have shown that poverty is related to MRSA colonization,<sup>11</sup> likely through differential risk of exposure to health care settings and close living quarters. Little is known about race and ethnicity and safety events, although Black race and Hispanic ethnicity are associated with both a higher likelihood of diabetes and worse diabetic control<sup>12</sup> – and as noted above, diabetes is associated with much higher odds of surgical site infections.<sup>4</sup> Functional status is another important potential confounder: impaired functional status is associated with a higher risk of infection,<sup>13</sup> and beneficiaries with social risk factors are more likely to have functional limitations. However, since such data are generally not available in large-scale assessments of hospital performance, it is impossible to assess the degree to which this is applicable.<sup>14,15</sup>

Many clinical risk-adjustment models simply count comorbid conditions appearing on claims and inadequately assess severity of these comorbid conditions; they also do not incorporate a beneficiary's functional status. Furthermore, beneficiaries with social risk factors may have unmet health needs that are not fully captured on claims. Unmeasured medical risk therefore may be masquerading as social risk, and therefore better assessment of clinical comorbid conditions and health status that are co-related with social risk could improve the validity and fairness of risk-adjustment methodologies used in patient safety measures. However until medical complexity can be adequately captured, beneficiary social risk may be acting as a proxy marker of medical complexity.

The second potential pathway, factors related to social risk itself, is even less well-understood. There are no data suggesting direct causation here, though again researchers have postulated how these

associations might arise. For example, providers could have biases against beneficiaries with social risk factors that place these beneficiaries at greater risk of healthcare associated infections, such as through shared rooms or higher inappropriate use of catheters, though there is little direct evidence to suggest this takes place.<sup>16,17</sup> Poor patient-provider communication may be another contributor to adverse events in beneficiaries with social risk factors: one study found that patients with limited English proficiency had higher rates of adverse safety events in the inpatient setting.<sup>18</sup>

The third potential pathway, factors related to hospital quality, suggests that beneficiaries with social risk factors may have higher rates of patient safety events because they seek care at hospitals that, on average, provide lower-quality care in this area. Again, the evidence here is largely conjectural. Safety-net hospitals have, on average, lower nurse staffing levels,<sup>19</sup> which has been shown to be associated with higher rates of urinary tract infection and other adverse events.<sup>20</sup> For example, one study found that higher nurse-patient ratios were associated with a greater than 30% reduction in infection risk and estimated that a quarter of infections could be prevented with higher staffing ratios.<sup>21</sup> Less is known about hospital infection control or patient safety strategies and safety-net status, though reports suggest that infection control staffing levels are inadequate nationally.<sup>22</sup>

Finally, a number of published studies show the efficacy of interventions in reducing the incidence of adverse events, particularly CLABSI and CAUTI, and proponents of the program argue that these successes indicate that medical or social risk need not be taken into account with these programs in place. For example, a recent study by AHRQ found that implementing a comprehensive unit-based safety program (CUSP) in a cohort of over 800 hospitals reduced CAUTI by 6-16% (from roughly 2.5 to 2.1 infections per 1,000 catheter days).<sup>23</sup> A similar study implemented CUSP in over 350 hospitals nationwide and found approximately 35% reduction in CLABSI rates (from 1.8 to 1.2 infections per 1,000 central line days),<sup>24</sup> demonstrating bloodstream infection rates can be reduced through effective hospital infection control programs.

The conceptual model presented highlights the challenges in considering whether to account in any way for the relationship between social risk and patient safety events when judging hospital performance. On one hand, adjusting patient safety measures for beneficiary social risk or hospitals' share of these patients could excuse poor performance that can partly be attributed to and addressed by the health care system. On the other hand, hospitals that disproportionately serve beneficiaries with social risk factors may appear to perform more poorly because their patients are more likely to have medical complexity that is not accounted for in performance measures.

### C. Limitations

This chapter examines patterns of performance based on beneficiary social risk using dual enrollment as a proxy for individual poverty, and Census-based information on neighborhood characteristics, as well as others risk factors such as race and ethnicity and rural location. While this chapter explores some policy options based on adjustment for dually-enrolled beneficiaries, it does not include policy options based on adjustment for individual patients' race and ethnicity or rural location. Because racial and ethnic

disparities in patient safety may be due to bias or lower vigilance among healthcare professionals, adjusting for within-hospital patient differences due to race or ethnicity could mask important disparities in care.

Analyses on rural hospitals should also be taken with the caveat that they do not include Critical Access Hospitals or other special designation rural facilities located in more isolated rural areas. This is because the majority of rural hospitals are not paid under the Inpatient Prospective Payment System (IPPS) and are thus ineligible for the HACRP.

Analyses of the HACRP were also limited to hospital-level data for the CDC components of the HACRP, since most of these measures are not collected at the patient level but rather submitted at the hospital ward level. As a result, the relationship between a beneficiary's individual social risk status and patient safety outcomes in this domain could not be assessed directly.

Finally, although the analyses in this chapter utilize the most recent available data and focus on current program requirements, they may not predict future performance, especially as program requirements and measure specifications evolve. In particular, this chapter attempts to address three major changes that may impact the HACRP in coming years:

- 1) First, at the time of this study, the HACRP had a scoring approach that assigned penalties not based on a continuous score, but rather using decile-based scoring – so, for example, both a hospital at the 22<sup>nd</sup> percentile of performance and one at the 29<sup>th</sup> percentile of performance would receive a score of “3.” This approach reduces information from performance rates and may group together hospitals with wide differences in performance into a single score group, leading to unusual “ties.” CMS has recognized concerns about this approach and has re-evaluated the program's scoring methodology. Instead of decile scoring, CMS plans to use continuous scoring or z-scores in the HACRP starting in FY2018; therefore it is included in the policy options section for evaluation.
- 2) The measures that comprise the HACRP are also undergoing change. AHRQ, the measure steward for the PSI-90, has added three new component measures (PSI-9, postoperative hemorrhage; PSI-10, postoperative physiologic and metabolic derangement; and PSI-11, postoperative respiratory failure). AHRQ has also removed CLABSI (PSI-07), and will incorporate harm- and volume-based weights for version 6 of the Modified PSI-90 measure; these changes were endorsed by the National Quality Forum (NQF) in December 2015, and CMS has adopted this new version of the measure starting in FY2018. The revised weighting scheme incorporates the risk of serious harm (readmission, death) to a beneficiary rather than weighting all events equivalently. The harms-based and volume-based weighting updates are also included in the policy options section.
- 3) Lastly, there is a small numbers problem for many hospitals in the program. Because many of the measures in the program are focused on specific procedures or wards (e.g., intensive care units), nearly one-third of hospitals in FY 2015 did not have sufficient cases to report the two CDC infection measures and therefore relied entirely on the PSI-90 measure to determine program score and

ranking. CMS has a number of potential fixes for this issue (see 81 Fed. Reg. 56761). For FY 2017, it will introduce MRSA and C. diff measures into the program that are relevant to all inpatients and in FY2018 it will broaden the CLABSI and CAUTI measures to non-ICU locations, which may improve small hospitals' ability to participate in this program component; however, these data were not available at the time of analysis (2015 rates that include non-ICU locations will be published by October 2016) and thus are not reflected in the policy options presented here.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the measures that comprise the HACRP. Next, it examines the performance of hospitals serving beneficiaries with social risk factors on these measures, and then the performance of these hospitals under the HACRP penalty calculations. Next, it outlines and simulates a set of potential policy options, including adjustment, stratification, rewarding improvement, and moving to linear penalty scales. Finally, strategies and considerations for HACRP are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

### **A. Beneficiary Characteristics**

Beneficiary characteristics are presented below for the group of beneficiaries eligible for the PSI-90 patient safety measures. About one third are dually enrolled in Medicaid and Medicare (includes both enrollees with full and partial benefits), 30% are beneficiaries who initially qualified for Medicare based on the presence of a disability. 17% live in areas in the bottom 20% of median ZCTA-level income and 21% live in rural areas (defined as non-metropolitan statistical areas). Beneficiaries of Black race make up 13%, and Hispanic beneficiaries make up 6% of all inpatient stays. There is significant overlap between social risk groups; for example, almost 53% of dually-enrolled beneficiaries also initially qualified for Medicare on the basis of a disability. Table 6.3 shows beneficiary characteristics overall and by social risk group:

**Table 6.3: Beneficiary Characteristics by Social Risk Group**

Beneficiary Characteristics	All	Dual	Originally entitled to Medicare on the basis of a disability	Black	Hispanic	Low-Income ZCTA	Rural
<b>N Stays</b>	66,544,522	21,590,426	20,320,953	8,498,248	3,811,703	11,534,119	14,112,050
<b>% of All Stays</b>	100.0%	32.4%	30.5%	12.8%	5.7%	17.3%	21.2%
<b>% Male</b>	44.7%	39.3%	49.2%	42.8%	45.3%	44.5%	45.8%
<b>Mean Age</b>	72.4	71.6	70.6	70.6	70.4	71.6	72.2
<b>% Dually-enrolled</b>	32.4%	100.0%	56.1%	58.4%	64.0%	49.3%	33.5%
<b>% Originally entitled to Medicare on the basis of a disability</b>	30.5%	52.8%	100.0%	49.0%	37.8%	41.4%	33.3%
<b>% Black Race</b>	12.8%	23.0%	20.5%	100.0%	0.0%	29.9%	8.3%
<b>% Hispanic Ethnicity</b>	5.7%	11.3%	7.1%	0.0%	100.0%	10.2%	2.4%
<b>% Low Income ZCTA</b>	17.4%	26.5%	23.6%	40.8%	31.2%	100.0%	28.9%
<b>% Rural</b>	21.3%	22.0%	23.2%	13.8%	8.8%	35.2%	100.0%
<b>% High Complexity*</b>	20.0%	28.8%	26.9%	28.7%	23.1%	22.9%	17.4%
*High complexity is defined as the highest 20% of total Hierarchical Condition Category (HCC) risk score. ZCTA=ZIP code tabulation area.							

**B. Provider Characteristics**

Table 6.4 shows the beneficiary populations and structural characteristics of hospitals in the HACRP for all participating hospitals as well as for hospitals who disproportionately serve beneficiaries with social risk factors. Hospitals with the highest quintile (20%) share of beneficiaries with social risk factors are displayed in the table: high-DSH (top 20% share of DSH Index), high-disabled, high-Black, or high-Hispanic. Low-income ZCTA hospitals are those in the bottom 20% of median ZCTA-level income within the Hospital Service Area. Rural hospitals are those which are located outside metropolitan statistical areas (MSAs).

Safety-net hospitals (top 20% share of DSH) serve a group that is much more often dually-enrolled, qualified for Medicare on the basis of a disability, and of minority race and ethnicity, but less often rural. These hospitals are more likely to be larger (300+ beds), major teaching institutions, publicly funded, and located in the South and West.

Table 6.4: Hospital Characteristics by Social Risk Group

Hospital Characteristic	All	Safety-Net (High-DSH)	High- Disabled	High-Black	High-Hispanic	Low Income ZCTA*	Rural (non- MSA) Hospital
<b>Beneficiary Population</b>							
% Dually-enrolled	32.4%	48.5%	46.7%	39.8%	43.8%	44.9%	36.6%
% Originally entitled to Medicare on the basis of a disability	30.5%	36.8%	43.7%	36.2%	30.5%	39.0%	33.3%
% Black Race	12.8%	22.6%	21.7%	34.4%	13.4%	23.9%	8.5%
% Hispanic Ethnicity	5.7%	14.1%	4.0%	4.3%	22.4%	10.0%	2.2%
% Low Income ZCTA	17.4%	28.4%	39.8%	29.4%	19.6%	54.5%	27.7%
% Rural	21.3%	17.5%	44.8%	19.3%	7.4%	40.3%	78.3%
% High Complexity	20.0%	23.0%	21.4%	22.5%	23.0%	21.1%	17.8%
<b>Structural Characteristics</b>							
Number of Hospitals	3222	650	621	628	616	582	651
Size: Large (300+ Beds)	23.8%	36.9%	15.5%	35.5%	31.7%	18.7%	22.1%
Size: Medium (299-100 Beds)	42.9%	41.1%	42.4%	37.6%	44.2%	40.5%	45.5%
Size: Small (99-0 Beds)	32.2%	22.0%	40.7%	25.5%	23.1%	40.2%	31.6%
Teaching Hospital	8.4%	20.0%	6.4%	17.6%	12.4%	8.0%	8.6%
Ownership: Non-profit	58.5%	48.2%	41.2%	48.4%	48.9%	41.8%	61.0%
Ownership: For-profit	25.6%	26.9%	31.6%	26.0%	32.3%	30.6%	20.6%
Ownership: Public	15.9%	24.9%	27.2%	25.6%	18.8%	27.7%	18.4%
Safety-net (Top Quintile DSH)	20.2%	100.0%	38.2%	42.7%	51.0%	41.8%	29.5%
Region: Northeast	15.3%	14.0%	7.1%	10.2%	10.7%	4.6%	24.0%
Region: South	40.1%	44.9%	64.9%	61.8%	32.3%	70.4%	33.9%
Region: Midwest	23.1%	11.2%	14.7%	16.2%	6.2%	14.8%	29.0%
Region: West	18.6%	28.5%	9.5%	7.0%	48.1%	7.0%	10.4%
Average Case Mix Index	1.52	1.50	1.34	1.49	1.57	1.36	1.39

DSH=disproportionate share index; MSA=metropolitan statistical area; ZCTA=ZIP code tabulation area.

\*Low-income ZCTA hospitals are in the bottom 20% of median ZCTA-level income within the Hospital Service Area.

### III. Beneficiary Social Risk and Performance on the HACRP Patient Safety Metrics

The first research question was whether there was a relationship between social risk factors and performance on the HACRP patient safety metrics, using the PSI-90 composite measure calculated from claims data. Beneficiary-level data was examined to determine whether there were differences in performance by social risk, and if so, whether these were primarily within-hospital versus between-hospital effects. These analyses were limited to the PSI metrics where beneficiary data are available.

#### A. Individual Social Risk and PSI Events

Within-hospital disparities based on patients' social risk were examined for each of the eight PSI metrics individually as shown in Table 6.5. The first column of the table presents unadjusted odds of an event, representing the overall odds for dually-enrolled versus other beneficiaries. In the next column the clinically risk-adjusted odds are displayed, which take into account medical factors that might increase the odds of an adverse outcome (for example, age, primary diagnosis, etc.; for details on the specific risk adjustment factors included for each PSI, please see the Appendix to this chapter). Finally, results from random-effects regression models (with the clinical risk-adjustment for each measure) are displayed in the third column; these models help isolate the effect of an individual beneficiary's social risk to within-hospital only, i.e., whether dually enrolled Medicare beneficiaries within a hospital are at greater risk of a patient safety event than a non-dual in the same hospital, after adjusting for clinical factors. In these analyses, dually-enrolled beneficiaries had a higher risk for four of the eight PSI-90 indicators. However, on the two measures (PSI-12 and PSI-15) with the highest weighting in the current composite, dually enrolled beneficiaries were equally or less likely to sustain an event (Table 6.5):

**Table 6.5: Social Risk and PSI Measure Performance, Dually-Enrolled Versus Non-Dually-Enrolled**

Measure	Unadjusted Odds of Event for Dually-Enrolled	Risk-Adjusted Odds of Event for Dually-Enrolled	Risk-Adjusted Within-Hospital Odds of Event for Dually-Enrolled
<b>PSI-3: Pressure Ulcer</b>	<b>1.13</b>	<b>1.15</b>	1.06
<b>PSI-6: Iatrogenic Pneumothorax</b>	<b>0.84</b>	<b>0.93</b>	<b>0.92</b>
<b>PSI-7: Catheter-Related BSI</b>	<b>1.67</b>	<b>1.36</b>	<b>1.36</b>
<b>PSI-8: Postop Hip Fracture</b>	<b>1.33</b>	1.32	<b>1.33</b>
<b>PSI-12: Periop PE or DVT</b>	0.98	<b>0.91</b>	<b>0.91*</b>
<b>PSI-13: Postop Sepsis</b>	<b>1.30</b>	<b>1.18</b>	<b>1.17</b>
<b>PSI-14: Postop Wound Dehiscence</b>	<b>1.45</b>	<b>1.39</b>	<b>1.37</b>
<b>PSI-15: Puncture or Laceration</b>	<b>0.68</b>	1.01	0.99

BSI=bloodstream infection; DVT=deep vein thrombosis; PE=pulmonary embolism. Odds ratios greater than 1 indicate greater risk of events; odds ratios less than 1 indicate lower risk. All bolded comparisons significant at p<0.05. \*Random effects model did not converge due to small numbers for covariates; logistic model was used instead.

Results were similar for beneficiaries with disabilities and Black beneficiaries (three of eight measures with higher odds of an event and one or two measures with lower odds of an event, respectively);

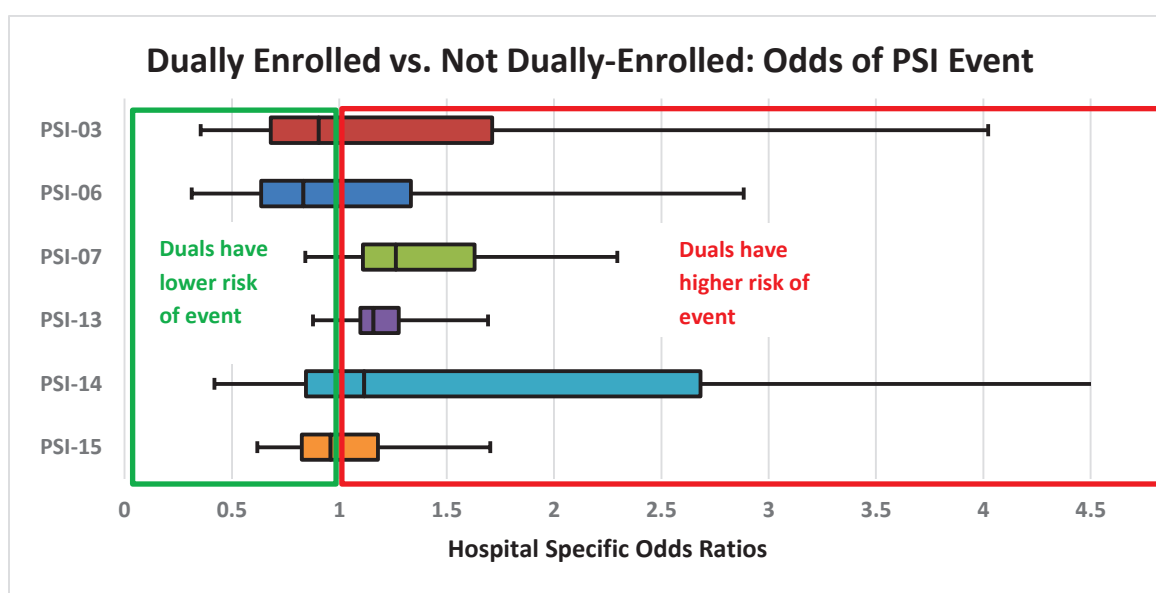


however, Hispanic and rural beneficiaries fared better (two of eight measures with lower odds of an event and only one measure with higher odds of an event; see the Appendix to this chapter for full results).

### B. Consistency of Effect of Social Risk Factors Across Hospitals

Next, models were constructed to determine whether the “within-hospital” effect of a beneficiary’s dual enrollment on the risk of patient safety events was similar across hospitals. Odds ratios that are very consistent among hospitals might suggest a more “fixed” relationship between the predictor and the outcome. Odds ratios that are widely divergent among hospitals might suggest less of a clear relationship. To examine this issue, random effects regression models that calculated the difference between the odds of having an adverse safety event for dually-enrolled and non-dually-enrolled individuals within each hospital were used. The range of these odds ratio results across hospitals are shown in Figure 6.1 below. Note PSI-8 and PSI-12 are not shown due to issues with models converging due to small numbers of patients with certain clinical risk factors.

**Figure 6.1: Variability of Dual Effect (Odds of PSI Event) Across Hospitals**



The boxes for each measure represent the odds of a dual having a PSI event at the 5<sup>th</sup> and 95<sup>th</sup> percentile of all hospitals. The vertical bar is the median odds ratio; the whiskers are the minimum and maximum values.

There was wide variability among hospitals on most PSI-90 components. However, for the two infection measures, PSI-7 (CLABSI) and PSI-13 (post-operative sepsis) 95% of hospitals had an odds ratio above 1, and the dual effect on higher risk of infections was relatively consistent.

Similar box plots were constructed to examine the variability in the effect of having a disability across hospitals. Findings were similar, with wide variability across measures, and the most consistent odds ratios for the infection measures, PSI-7 (CLABSI) and PSI-13 (post-operative sepsis). This finding suggests that medically vulnerable beneficiaries, especially dually-enrolled beneficiaries or those with disabilities,

might face increased susceptibility to healthcare-associated infections (see the Appendix to this chapter for full results).

#### IV. Hospital Levels of Social Risk and Performance on the HACRP Patient Safety Metrics

##### A. Hospital Characteristics and PSI Events

Models were constructed to test the relationship between being admitted to a safety-net hospital and having a PSI event, irrespective of individual social risk. The primary predictor is being admitted to a safety-net hospital, as defined by being in the highest quintile of DSH payments. Results are shown in Table 6.6, where the odds refer to all patients in the safety-net hospital, whether those individuals themselves are at socially at-risk or not. Again, first the unadjusted odds of an event are displayed, then the odds with clinical risk-adjustment for the PSI component measure. Analyses showed that beneficiaries at safety-net hospitals had higher odds of an event for six of the eight PSIs, both before and after clinical risk adjustment, although risk-adjustment slightly lowered the effect.

**Table 6.6: PSI Measure Performance, Safety-Net Versus Non-Safety-Net Hospitals**

Measure	Unadjusted Odds of Event for Patients at Safety Net Hospitals (top 20% DSH)	Risk-Adjusted Odds of Event for Patients at Safety Net Hospitals (top 20% DSH)
<b>PSI-3: Pressure Ulcer</b>	<b>1.45</b>	<b>1.36</b>
<b>PSI-6: Iatrogenic Pneumothorax</b>	<b>1.18</b>	<b>1.13</b>
<b>PSI-7: Catheter-Related BSI</b>	<b>1.49</b>	<b>1.22</b>
<b>PSI-8: Postop Hip Fracture</b>	0.94	0.94
<b>PSI-12: Periop PE or DVT</b>	<b>1.17</b>	<b>1.09</b>
<b>PSI-13: Postop Sepsis</b>	<b>1.26</b>	<b>1.17</b>
<b>PSI-14: Postop Wound Dehiscence</b>	<b>1.19</b>	<b>1.19</b>
<b>PSI-15: Puncture or Laceration</b>	1.07	1.05
BSI=bloodstream infection; DVT=deep vein thrombosis; PE=pulmonary embolism. Odds ratios greater than 1 indicate increased risk of event; odds ratios less than 1 indicate reduced risk. All bolded comparisons are significant at p<0.001.		

Results were similar but less striking when hospitals in the highest quintile of each of the other beneficiary social factors were examined: beneficiaries in high-disabled hospitals faced higher risks of a patient safety event (two of eight higher, one lower), as did those in hospitals that served more Black beneficiaries (three of eight higher, one lower), and hospitals that served more Hispanic beneficiaries (four of eight higher, none lower). However, beneficiaries at rural hospitals fared better than their urban counterparts (no measures with higher odds, and three measures with lower odds, of an event) (see the Appendix to this chapter for full results).

**B. Comparison of Individual Beneficiary versus Hospital Social Risk Factor on PSI Events**

Finally, models were constructed to test the independent effects of beneficiary versus hospital factors on PSI events. Each individual social risk factor was paired with its hospital equivalent (for example, individual dual enrollment status with hospitals with high share of duals) in a single random effects model, an approach that also addressed the potential for residual confounding by hospital proportion of beneficiaries with social risk factors and thus provided the best estimate of the within-hospital effect. These analyses showed that beneficiary social risk and a hospital's safety-net status independently contributed to an individual's risk of having a safety event. After adjusting for safety-net status, dually enrolled beneficiaries still had higher odds for four of the eight PSIs, and after adjusting for beneficiary's dual-enrollment status, safety-net hospitals still had higher odds for four of the eight PSIs (Table 6.7):

**Table 6.7: Relationships with PSI-90 Components: Patient Social Risk (Duals) and Safety-Net Hospital Status in Single Model**

Measure	Beneficiary Effect Odds Ratio: Dually-Enrolled vs. Not (within-hospital effect), Controlling for Hospital Safety-Net Status	Hospital Effect Odds Ratio: Safety-Net vs. Non-Safety-Net, Controlling for Beneficiary Dual Enrollment Status
PSI-3: Pressure Ulcer	<b>1.16</b>	<b>1.35</b>
PSI-6: Iatrogenic Pneumothorax	0.98	<b>1.17</b>
PSI-7: Catheter-Related BSI	<b>1.31</b>	<b>1.23</b>
PSI-8: Postop Hip Fracture	1.37	0.89
PSI-12: Periop PE or DVT	0.97	1.09
PSI-13: Postop Sepsis	<b>1.35</b>	<b>1.18</b>
PSI-14: Postop Wound Dehiscence	<b>1.54</b>	1.16
PSI-15: Puncture or Laceration	1.02	1.08
Beneficiary effect model includes hospital random effects, beneficiary dual status, and hospitals with high share of duals to estimate the "within-hospital" effect of beneficiary social risk. BSI=bloodstream infection; DVT=deep vein thrombosis; PE=pulmonary embolism. Odds ratios greater than 1 indicate increased risk of event; odds ratios less than 1 indicate reduced risk. All bolded comparisons are significant at $p<0.001$ .		

Thus, the beneficiary effect and hospital effect were largely independent of each other, yet both conferred significantly higher risk for a number of events. This finding suggests that both beneficiary characteristics and hospital practices contribute to the observed rates of patient safety events. Findings were mixed across the PSI components for the other social risk factors examined (see the Appendix to this chapter).

**C. Hospital Social Risk Levels and Relationship with CDC Infection Ratios**

Domain 2 of the HACRP includes the CDC's healthcare associated infection (HAI) measures which assess rates of laboratory-confirmed infections among all at-risk patients (not just Medicare beneficiaries). Since adults 18 years and older are included in these measures, hospitals with a highest quintile share of Medicaid and Medicare patients based on the DSH Index is used to identify safety-net hospital status,

instead of high proportion of dually-enrolled beneficiaries for the Medicare-only PSI-90 measure. Because infection rates are collected, adjusted, and reported only at the ward and hospital level, and not at the patient level, beneficiary-level analyses of infection rates under the CDC measures were not feasible. However, infection rates could be compared by hospital type, as shown below. The CDC's healthcare associated infection measures are reported as a standardized infection ratio (SIR), which compares a hospital's rates against a national average rate measured by CDC in the baseline period. Ratios below 1 mean the hospital did better than the national average in the baseline period; ratios above 1 mean the hospital has a higher infection rate than the national average.

Although safety-net hospitals (top 20% DSH) scored below 1 on central line associated blood stream infections [CLABSI] and Clostridium Difficile [C. diff], indicating that these infection rates in these two areas have improved since 2012, their rates for catheter associated urinary tract infections [CAUTI], surgical site infections [SSI], and methicillin-resistant staphylococcus aureus [MRSA] remain above current national averages. In addition, safety-net hospitals performed worse than non-safety-net hospitals on four of the five measures that are or soon will be included in the HACRP program (Table 6.8). However, without patient-level data it is not possible to tell whether the higher rates observed in safety-net hospitals are due to patterns in the underlying patient population, to lower-quality care and poorer infection control at safety-net hospitals, or, as suggested by the PSI infection measures, both.

**Table 6.8: Hospital Social Risk and CDC Infection Ratios**

Measure	Safety-Net Hospital (top 20% DSH)	Non-Safety-Net Hospital	Difference (Safety-Net Minus Non-Safety-Net)
<b>CLABSI</b>	<b>0.65</b>	<b>0.52</b>	<b>0.13</b>
<b>CAUTI</b>	<b>1.02</b>	<b>0.93</b>	<b>0.08</b>
<b>Surgical Site Infection<sup>†</sup></b>	<b>1.05</b>	0.99	<b>0.04</b>
<b>MRSA infection<sup>†</sup></b>	<b>1.05</b>	<b>0.88</b>	<b>0.17</b>
<b>Clostridium Difficile infection<sup>‡</sup></b>	<b>0.69</b>	<b>0.81</b>	<b>-0.12</b>
<p>Lower CDC standardized infection ratios represent better care.            CLABSI=central-line associated bloodstream infection; CAUTI=catheter-associated urinary tract infection; MRSA=methicillin-resistant staphylococcus aureus.            All bolded comparisons are significant at p&lt;0.01.  <sup>†</sup>Part of the HAC program starting in FY 2016, combines colectomy and hysterectomy rates  <sup>‡</sup>Part of the HAC program starting in FY 2017</p>			

Similar patterns were seen for hospitals in the highest quintile for beneficiaries with disabilities as well as for Black, and Hispanic beneficiaries; these hospitals had worse rates for at least one to two of the five healthcare-associated infection measures. However, rural hospitals had better performance on these infection rates than urban hospitals, with at least two measures statistically better and none worse than urban hospitals (see the Appendix to this chapter for full results).

## V. Impact of the HACRP on Safety-Net Hospitals

As noted above, the metrics assessed under the HACRP are combined into two domains, with Domain 1, which includes the PSIs analyzed above, accounting for 25% of the overall score in FY 2016 and Domain 2, comprising the three CDC measures (CLABSI, CAUTI, and SSI) in FY 2016, for the remaining 75%; in FY2015 Domain 1 made up 35% and Domain 2 made up 65% of the overall score. Performance under these domains was examined for the hospital types of interest. To be consistent with program methodology, hospitals' measure performance was then translated into scores based on their decile ranking, with a score of 1 indicating the lowest rates of patient-safety event and infections, and 10 the highest, so that higher scores represented *worse* performance.

The impact of the HACRP are shown for the most recently available year, FY2016, but findings are similar for FY2015, the first year of the program. Figure 6.2 shows the distribution of the FY 2016 Total HAC Score (scored in deciles) by deciles of DSH Index. There is a trend towards higher (worse) Total HAC Scores (more red in the figure) as hospitals' DSH Index increases (to the right of the figure).

**Figure 6.2 Distribution of Total HAC Scores by DSH Deciles**

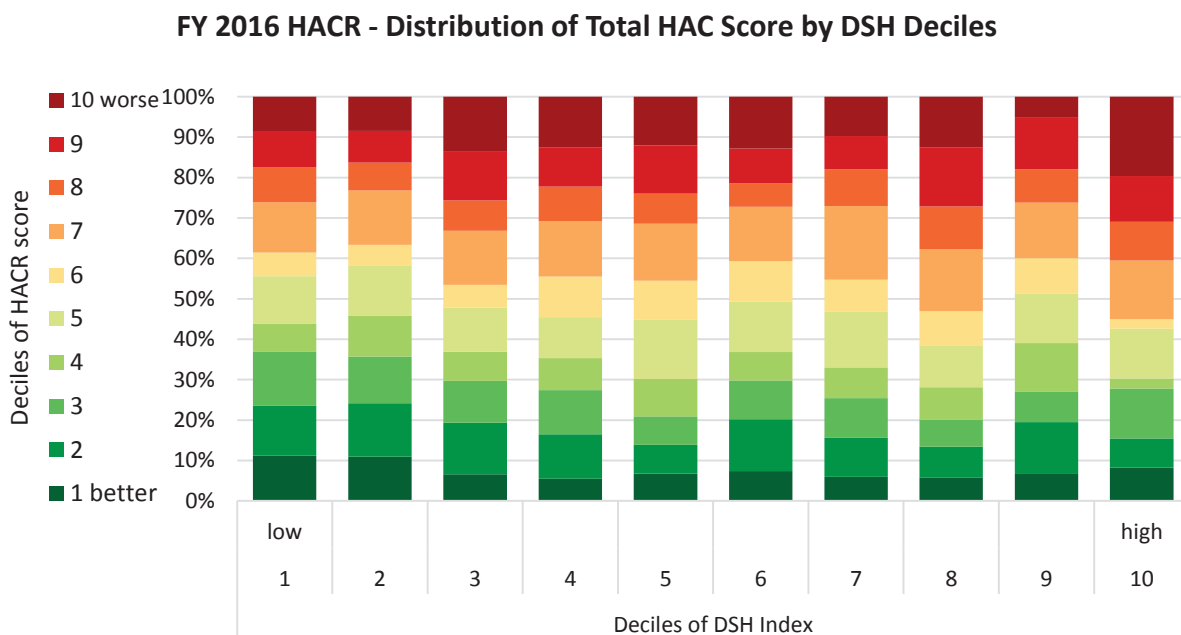


Figure 6.3 shows the distribution in a different way, but similarly demonstrates that safety-net hospitals (top 20% DSH Index, in red) are more likely to have higher Total HAC Scores, and therefore more likely to be penalized as they fall above the penalty threshold.

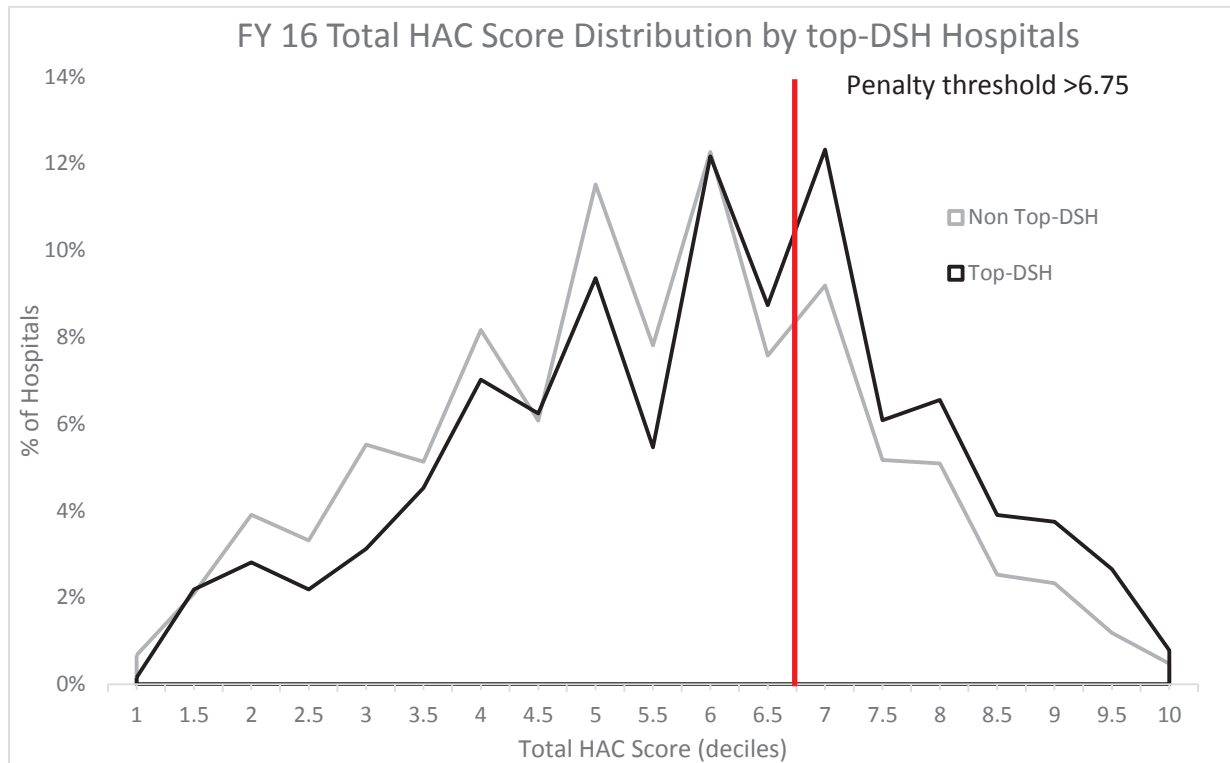
**Figure 6.3. FY 2016 Total HAC Score in safety-net hospitals (top 20% DSH) vs. all other hospitals**

Table 6.9 compares each hospital type to all other hospitals – for example, safety-net hospitals as categorized by DSH Index versus non-safety-net hospitals. Overall, high-DSH hospitals were the worst performers on average, with an average Total HACRP Score of 5.8; this score was 0.4 points worse than non-high-DSH hospitals and was driven by poor performance in both Domain 1 and Domain 2. Rural hospitals were the best performers on average, with a Total HAC Score of 4.9.

**Table 6.9: Domain and Total HAC Scores by Hospital Type, FY2016**

Hospital Type	Domain 1: PSIs	Domain 2: CDC	Total HAC Score	Difference in Total Score, vs Other Hospitals*
<b>SNH (high DSH)</b>	5.9	5.7	5.8	<b>0.4</b>
<b>High-Dual</b>	5.5	5.3	5.4	0.0
<b>Low-income ZCTA</b>	5.5	5.1	5.3	-0.1
<b>High-Black</b>	5.8	5.7	5.8	<b>0.4</b>
<b>High-Hispanic</b>	5.6	5.6	5.6	<b>0.3</b>
<b>High-Disabled</b>	5.6	5.0	5.3	-0.2
<b>Rural (non-MSA)</b>	5.3	4.6	5.0	<b>-0.6</b>

Higher domain and total scores represent worse performance. MSA=metropolitan statistical area; SNH=safety-net hospital. Bolded differences are statistically significant at  $p < 0.01$ . \*Comparisons are for the group of interest versus all hospitals not in that group; for example, safety-net versus non-safety-net, or rural versus non-rural.

The differences in average scores translated to very different likelihoods of being penalized. Recall that in the HACRP the worst 25% of hospitals are assessed a penalty equal to 1% of total Medicare IPPS payments. In reality, because of ties in decile scores and other program exclusions, only 22% of hospitals ended up penalized in FY 2015. Table 6.10 shows the likelihood of being penalized and average penalties, and shows that safety-net (high-DSH) hospitals had 70% higher odds of being penalized than non-safety-net hospitals. Rural hospitals were half as likely to be penalized as their urban counterparts. High-DSH hospitals also had high penalties in dollar value (rightmost column) because they tend to be larger hospitals with higher annual revenues; their base Medicare payments are also higher due to add-on DSH and Indirect Medical Education (IME) payments. In multivariate analyses including all of the above factors plus teaching status, hospital size, location, and ownership, safety-net status remained associated with 30% higher odds of being penalized.

**Table 6.10: Likelihood of Penalty and Average Penalty, by Hospital Type, FY2016**

Hospital Type	Proportion of Hospitals Penalized	Odds of Penalty (compared to hospitals not in the group of interest)	Average Penalty in Thousands of Dollars (among penalized hospitals)*
Overall Program	25%	n/a	\$435.0
SNH (high DSH)	31%	<b>1.5</b>	\$513.9
High-Dual	25%	1.1	\$315.6
Low-income ZCTA	23%	0.9	\$326.2
High-Black	30%	<b>1.4</b>	\$551.9
High-Hispanic	28%	1.3	\$458.2
High-Disabled	24%	1.0	\$319.4
Rural (non-MSA)	19%	<b>0.7</b>	\$130.2
All bolded comparisons are significant at p<0.001.			
*Penalty is 1% of total Medicare hospital payments.			

## VI. Policy Options

### A. Introduction

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 6.11:



**Table 6.11. Policy Criteria**

<b>Policy Criteria</b>
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How policymakers weight these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

In keeping with other analyses in this report, five main policy options are presented: (1) status quo, (2) risk-adjustment, (3) stratification, (4) rewarding improvement, and (5) providing a bonus for high performance for populations who are socially at-risk. In addition, analyses were performed to simulate two additional ways to level the playing field for the safety net by restructuring the current program, namely (1) changing payment calculations to base DRG payments instead of total IPPS payments and (2) restructuring the HACRP to a linear penalty scale that would spread penalties more broadly. Finally, CMS' changes to the HACRP for FY 2018 (incorporating harms-based weighting and moving to a z-score methodology) were modeled. For each option, after applying the policy strategy (adjustment, stratification, etc.) and re-calculating a program score, hospitals were re-ranked, and the worst 25% were considered to be in penalty status. Policy simulations were modeled based on FY2015 program data and measures, except for the improvement policy option which by necessity used data from both years, FY2015 and FY2016, to measure improvement. Table 6.12 provides an overview of the policy options, and the text that follows provides additional detail on each.

Table 6.12: Summary of Policy Options

Option	Description	Pros of Option	Cons of Option
<b>1. Status Quo</b>	Current Program	<ul style="list-style-type: none"> <li>Hospitals' performance on patient safety assessed in a clear way to determine penalties.</li> </ul>	<ul style="list-style-type: none"> <li>Safety-net hospitals are more likely to be penalized in the current program, which may in part reflect differences in the complexity of the patients they serve.</li> </ul>
<b>2. Adjustment</b>	Risk-adjust measures for social risk, disability, or medical complexity at patient-level for PSI-90 or hospital-level for HAI measures (see options 2a-2f)	<ul style="list-style-type: none"> <li>May protect providers from unfair financial stress</li> <li>May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations</li> </ul>	<ul style="list-style-type: none"> <li>May reduce incentives to reduce disparities in quality and outcomes</li> <li>May adjust for differences in performance unrelated to social risk, or under provider control.</li> <li>May worsen transparency</li> </ul>
<b>3. Stratification</b>	3a) Stratify hospitals into two strata by DSH Index (hospitals in top 20% DSH Index versus the rest) 3b) Stratify hospitals into five strata by DSH quintiles	<ul style="list-style-type: none"> <li>May protect providers from unfair financial stress</li> <li>May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.</li> </ul>	<ul style="list-style-type: none"> <li>May reduce incentives to reduce disparities in quality and outcomes</li> <li>May adjust for differences in performance unrelated to social risk, or under provider control.</li> <li>May worsen transparency</li> </ul>
<b>4. Improvement credit</b>	Allow hospitals to "buy down" penalty based on improvement.	<ul style="list-style-type: none"> <li>May protect providers from unfair financial stress</li> <li>May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.</li> </ul>	<ul style="list-style-type: none"> <li>May reduce incentives to reduce disparities in quality and outcomes</li> <li>May adjust for differences in performance unrelated to social risk, or under provider control</li> <li>May worsen transparency</li> <li>If improvement does not differ by safety-net status, this option does not address differences due to social risk.</li> </ul>
<b>5. Improvement credit, based on social risk</b>	Extra credit for improvement buy-down by DSH. This option is another variation of the improvement option, but addresses differences in hospitals' patient populations based on social risk.	<ul style="list-style-type: none"> <li>To address the limitations of an improvement-only credit, this option gives extra credit for improvement for hospitals who serve beneficiaries with social risk factors, to recognize it may be harder to improve in that setting.</li> </ul>	<ul style="list-style-type: none"> <li>May reduce incentives to reduce disparities in quality and outcomes</li> <li>May adjust for differences in performance unrelated to social risk, or under provider control</li> <li>May worsen transparency</li> </ul>

## 6: The HACRP

119

<b>6. Program re-structuring</b>	6a) Penalties on base DRG payments instead of IPPS payments.  6b) Use a linear penalty scale to calculate penalties	<ul style="list-style-type: none"> <li>Penalties calculated on base DRG payments would align hospital programs.</li> <li>Linear penalty scale would provide incentives for improvement across a broad range of performance, rather than just around the 25<sup>th</sup> percentile.</li> </ul>	<ul style="list-style-type: none"> <li>Does not directly address social risk, except for in as much as it would reduce the penalty for safety-net hospitals and other hospitals with add-on payments above base DRG.</li> </ul>
<b>7. Effect of Changes to PSI-90 and scoring system (see FY2017 IPPS Final Rule)</b>	7a) Move to harms-based weights for PSI-90 7b) Replace decile-based scores with winsorized z-scores 7c) Move to harms-based weights for PSI-90 and replace decile-based scores with winsorized z-scores	<ul style="list-style-type: none"> <li>Modified PSI-90 and continuous scoring better reflect differences in hospital performance and harms to patients</li> </ul>	<ul style="list-style-type: none"> <li>Safety-net hospitals may perform worse on the modified PSI-90 measure.</li> </ul>
<b>8. Effect of Changes to PSI-90 and scoring system (see FY2017 IPPS Final Rule) Plus Adjustment or Stratification options</b>	8a) CMS-planned changes above plus adjustment - adjust PSI-90 for dually enrolled beneficiaries; adjust CDC measures by DSH, HCC, or both 8b) CMS proposed changes plus and stratification	<ul style="list-style-type: none"> <li>As above for adjustment and stratification options</li> </ul>	<ul style="list-style-type: none"> <li>As above for adjustment and stratification options</li> </ul>

## **B. Policy Options Simulation Results**

### **1. Status Quo**

The first option was to keep the status quo, making no changes to the program. However, it is the Department's position that the HACRP may warrant changes, to improve its ability to fairly and accurately incent and reward quality. Thus, options for change were considered, as presented below.

### **2. Adjustment**

#### **a. Regression-Based Risk-Adjustment for Social Risk Factors**

The first option modeled was to add beneficiary social risk factors to the risk-adjustment models. Doing so would potentially meet the policy criteria of reducing disincentives to caring for high-risk populations, or protecting providers from unfair financial stress. However, the drawback of this option is that it risks masking true disparities in care, by adjusting for differences in performance related to factors beyond the social risk factor itself and/or under providers' control, such as bias or discrimination. It could also reduce incentives to address disparities in quality and outcomes, and negatively impact transparency to facilitate consumer choice.

Adjustment of measures for social risk would be a budget-neutral policy option but might require re-specification and testing of the measure by the measure developer and re-endorsement of the measure by NQF, if changes are significant.

To test this adjustment, dual enrollment status and census-based social risk factors were added to the risk models for each PSI-90 component, which were then compared to the current FY 2015 HACRP measures and domain weights. Table 6.13 shows the results of these adjustments. Adding beneficiary social risk to each of the PSI-90 component measures increased penalties in both groups but did not change the difference between safety-net and non-safety-net hospitals. The reason that adjusting for social risk led to worse scores, which may be counterintuitive, is that the two PSIs accounting for the majority (roughly 75%) of the current PSI-90 composite, blood clot and accidental puncture/laceration, were less likely to affect patients who are socially at-risk. Therefore, adjusting for social risk led to a worsening in these two measure scores, which in turn led to an overall worse performance score for safety-net hospitals. These findings suggest that adjusting for social risk at the individual level does not reduce the gap for safety-net hospitals, at least as the PSI-90 composite measure is currently constructed and weighted; this should be re-examined when the modified PSI-90 measure is finalized and available for analysis.

**Table 6.13: Percent Penalized After Adjusting PSI-90 for Social Risk Factors**

Hospital Type	% Penalized Under Current Policy	Add Dual Enrollment Status to PSI-90 Risk Adjustment	Add Dual Enrollment, Entitlement for Medicare based on Disability, Race, Ethnicity, and Census-based Risk Factors to PSI-90 Risk Adjustment
<b>Safety-Net (top 20% DSH)</b>	29.8%	32.6%	31.8%
<b>Non-Safety-Net (all other)</b>	20.1%	22.5%	22.7%
<b>Difference</b>	<b>9.7%</b>	<b>10.1%</b>	<b>9.1%</b>
Performance data for FY 2015 HACRP program year were used to calculate the PSI-90 measures and incorporate social risk factors. Revised Domain 1 scores were calculated after adjusting the PSI-90 measure and combined with current (FY 2015) CDC measure scores to determine revised Total HAC Scores and revised penalty status of hospitals. Bolded comparisons are significant at p<0.05.			

It would also be feasible to adjust the PSIs for social risk factors at the individual level using beneficiary characteristics (dual enrollment, entitlement based on disability, census neighborhood characteristics, etc.) and also adjust the CDC HAI measures at the hospital level using the DSH Index or another measure of hospital social risk. Such an approach would reduce disincentives to caring for high-risk populations. However, hospital-level adjustment option for the HAI measures is even less appealing than adjusting purely at the individual level (e.g., dual status for PSI component measures) because it would effectively adjust for both within-hospital (i.e., due to patient factors) and between-hospital differences, and thus risk masking important differences between these groups of hospitals in the quality of care delivered. This option would be budget-neutral, and would require measure re-specification and rulemaking for implementation.

Simulating this approach led to a smaller difference between safety-net and other hospitals penalized, dropping it by more than half from nearly 10% to less than 4% (Table 6.14). Adjusting the HAI measures (i.e., CLABSI and CAUTI) measures at the patient level for either medical or social risk would be preferable but is not currently feasible, as data for these HAI measures are submitted by hospitals at the hospital level and only risk-adjusted for facility characteristics at this time.

**Table 6.14: Percent Penalized After Adjusting PSIs for Social Risk and CDC measures for DSH Index**

Hospital Type	% Penalized Under Current Policy	Adjust PSIs for Social Risk Factors and CDC Measures for DSH index
<b>Safety-Net (top 20% DSH)</b>	29.8%	27.8%
<b>Non-Safety-Net (all other)</b>	20.1%	24.1%
<b>Difference</b>	<b>9.7%</b>	<b>3.7%</b>
Note: PSI-90 is adjusted for dual, disability, race and ethnicity, and ZCTA-level Census measures of social risk. CDC measures are adjusted for hospital DSH index. Bolded comparisons are significant at p<0.05.		

**b. Regression-based Risk-Adjustment for Additional Medical Complexity**

One other important issue is whether unmeasured medical complexity may partly explain the observed relationship between patients' social risk and PSI-90 measure performance. If the observed effect of social risk is due to unmeasured medical complexity or multi-morbidity, it may be important to incorporate this missing clinical information. This policy option would reduce disincentives to caring for high-risk populations and protect providers from unfair financial stress. It would be budget-neutral, and would require measure re-specification and rulemaking.

Medical complexity was evaluated in two ways: first, by adding disability status to the model, and second, by adding a marker for medical complexity. To define medical complexity, Medicare's Hierarchical Condition Category (HCC) medical risk scores were calculated using a one-year look-back window in Medicare claims. These scores were divided them into risk quintiles, with the highest risk quintile defined as medically complex. The HCCs will capture comorbidities that have been diagnosed and documented in Medicare claims, and may augment comorbidities included in a measure's clinical risk-adjustment. However, HCCs may not capture other comorbidities such as limitations in functioning or undiagnosed conditions.

Adding medical complexity to the model increased penalties in both groups because it broke a number of ties in scores at the 75<sup>th</sup> percentile, leading to a final proportion of hospitals penalized much closer to 25% than the initial program; the gap between safety-net and non-safety-net hospitals remained (Table 6.15). These findings suggest that adjusting for medical complexity using disability or risk quintiles does not reduce the differential penalty for safety-net hospitals, at least when only applied to the PSI measures (which comprise a minority of the total score). Other ways to identify medical complexity may yield different results.

**Table 6.15: Percent Penalized After Adjusting PSI-90 for Disability or Medical Complexity**

Hospital Type	% Penalized Under Current Policy	Add Disability to PSI-90 Risk Adjustment	Add Medical Complexity (top Quintile of HCC scores) to PSI-90 Risk Adjustment
<b>Safety-Net (top 20% DSH)</b>	29.8%	34.0%	33.8%
<b>Non-Safety-Net (all other)</b>	20.1%	22.7%	22.6%
<b>Difference</b>	<b>9.7%</b>	<b>11.3%</b>	<b>11.2%</b>
*Disability flag and medical complexity (top 20% of HCC scores) were added separately to the PSI-90 risk-adjustment. Bolded comparisons are significant at p<0.05.			

It would also be feasible to adjust the PSIs for medical complexity at the individual level using HCC medical risk scores and also adjust the CDC measures at the hospital level using the hospital's Patient Case Mix Index (CMI) as a measure of overall medical complexity at a hospital. As noted above, this is a less attractive option because it lacks the precision of patient-based risk adjustment. Under this approach, again more hospitals were penalized due to fewer ties, and the gap between safety-net and non-safety-net hospitals was unchanged (Table 6.16).

**Table 6.16: Percent Penalized After Adjusting PSIs for Medical Complexity and CDC measures for Case Mix Index**

Hospital Type	% Penalized Under Current Policy	Adjust PSIs for Medical Complexity and CDC Measures for Case Mix Index*
<b>Safety-Net (top 20% DSH)</b>	29.8%	33.5%
<b>Non-Safety-Net (all other)</b>	20.1%	22.8%
<b>Difference</b>	<b>9.7%</b>	<b>10.7%</b>
*Medical complexity flag (top 20% of HCC scores) was added to the PSI-90 risk-adjustment. CDC measures were adjusted based on each hospital's patient case-mix index (CMI, version 32) reported in the 2012 Medicare Cost Reports. Bolded comparisons are significant at p<0.05.		

### 3. Stratification

Stratification refers to breaking hospitals into groups and then judging their performance, in essence attempting to create groups to allow the comparison of “like with like.” This policy option would reduce disincentives to caring for high-risk populations and protect providers from unfair financial stress. However, it would not encourage reduction in disparities, and could negatively impact transparency, depending on how it was applied. It would also set different standards for different hospitals, effectively adjust for both within-hospital (i.e., due to patient factors) and between-hospital differences, and thus risk masking important differences between these groups of hospitals in the quality of care delivered. Finally, depending how the groups were defined, it could create policy “cliffs” whereby two hospitals with relatively similar social risk profiles are in two different peer groups and therefore held to different standards.

Stratification would be a roughly budget-neutral policy option. To model a stratification option, hospitals were divided first into two peer groups (top quintile DSH and all others), and then into five groups based on quintiles of DSH index. The worst 25% of performers were then identified within each group and assigned the penalty status. Table 6.17 shows the impact on penalties under stratification by two or five groups; this option reduced the proportion of hospitals that were penalized significantly for the safety-net.

**Table 6.17: Percent Penalized After Stratification into Two or Five Groups based on DSH Index**

Hospital Type	% Penalized Under Current Policy	Stratify into Two Groups by DSH Index (top 20% vs other)	Stratify into Five Groups by DSH Index (quintiles)
<b>Safety-Net (top 20% DSH)</b>	29.8%	24.9%	24.9%
<b>Non-Safety-Net (all other)</b>	20.1%	24.6%	23.3%
<b>Difference</b>	<b>9.7%</b>	0.3%	1.6%
Bolded comparisons are significant at p<0.05. Note: Proportion penalized in each stratum is not exactly 25% due to ties in hospitals' decile scores.			



#### 4. Rewarding Improvement

Currently, the HACRP does not directly incorporate a hospital's improvement over time in its scoring. Since the program penalizes the top quartile of hospitals based on the total HACRP score, hospitals whose performance improves within the penalty zone do not get credit unless they move below the penalty threshold. Safety-net hospitals may be more likely to have worse scores based on achievement due to resource constraints but could be working hard to improve. Under a threshold-based penalty program, the poorest performers may find it difficult to move past the penalty threshold. One policy option to address this issue is to build an improvement measure into the program while maintaining the top 25% threshold-based penalty program design. This option does not explicitly address beneficiary social risk, but the option to reward improvement differentially based on social make-up could give extra credit to safety-net hospitals for their efforts to improve care for the beneficiaries with social risk factors they serve.

Changes to the program's payment determination would reduce the penalties received by CMS and therefore would not be budget neutral, although reductions in penalties would be fairly small.

A policy option was modeled in which hospitals that were in the penalty range could "buy down" their penalty based on the amount of improvement they made from the prior year. A continuous score instead of the stepped decile scores is needed to measure small improvements in patient safety rates; in this example winsorized z-scores were applied. The amount of the buy-down was the hospital's percentile improvement divided by 24% (the maximal percentile improvement in the penalty range; for details see the Appendix to this chapter.) For example, a hospital that improved from the 92<sup>nd</sup> to the 80<sup>th</sup> percentile would still be in the penalty range, but would see its penalty reduced by  $12\%/24\% = 50\%$ . Thus, the final penalty would be 0.5% rather than 1.0% of total Medicare payments. This approach would only reduce the penalty amount, and not the proportion of hospitals penalized.

Under this option, the proportion of hospitals penalized remained unchanged, but the average penalty per hospital was reduced by about \$40-50,000 (Table 6.18). Improvement scores on average were slightly lower for safety-net status hospitals: about 0.20 for safety-net hospitals versus 0.26 for other hospitals, although slightly more safety-net hospitals showed improvement (25% vs. 19%). (See the Appendix to this chapter for details). Thus, allowing an improvement buy-down led to small changes in program impacts, with the difference in penalty amount between safety-net and other hospitals dropping slightly from \$89,000 to \$84,000 on average.

**Table 6.18: Percent Penalized and Penalty Amount After Applying Improvement Buy-Down**

Hospital Type	% Penalized Under Current Policy, FY 2016*	% Penalized Under Improvement Buy-Down	Average Penalty Under Current Policy, FY 2016, in Thousands of Dollars	Average Penalty Under Improvement Buy-Down in Thousands of Dollars
<b>Safety-Net (top 20% DSH)</b>	34.0%	34.0%	\$525	\$475
<b>Non-Safety-Net (all other)</b>	23.1%	23.1%	\$436	\$391
<b>Difference</b>	<b>10.9%</b>	<b>10.9%</b>	<b>\$89</b>	<b>\$84</b>

Bolded comparisons are significant at p<0.05.

\*For the improvement policy options, which require multiple years of data to calculate, FY 2016 performance with and without the improvement buy-down are presented. These simulations only include hospitals with data in both FY 2015 and FY 2016. The average penalty amounts in FY 2016 for safety-net hospitals were lower than in FY 2015 due to fewer outlier safety-net hospitals with high penalty amounts. Therefore the difference in penalty amount is smaller in FY 2016 than FY 2015, but is not due to the policy option modeled.

### 5. Extra credit for Improvement for Hospitals Serving Socially at-risk Populations

The option to include a bonus for improvement in beneficiaries with social risk factors is an extension of the improvement buy-down option described above, except that the improvement buy-down amount is multiplied by the DSH index or the hospital's share of the social risk factor of interest. Starting from the example above, a hospital that improved from the 92<sup>nd</sup> to 80<sup>th</sup> percentile would have its penalty reduced by 12%/24%\*DSH Index. Thus, a hospital with a DSH Index of 100 would receive the entire buy-down of 0.5%, while a hospital with a DSH Index of 50 would receive half the buy-down at 0.25% (see Appendix to this chapter for details). Under this option, hospitals with more beneficiaries with social risk factors would get greater credit for improvement, while hospitals with fewer would not be given as much credit for improvement. Like the general improvement option, this would likely not be budget neutral.

When this option was simulated, as shown in Table 6.19, safety-net hospitals received greater credit for improvement than other hospitals, as anticipated. Specifically, allowing a scaled improvement buy-down reduced the average penalty amount to only about 0.7% instead of the total 1% penalty.

**Table 6.19: Percent Penalized and Penalty Amount After Applying Improvement Buy-Down Scaled by DSH**

Hospital Type	% Penalized Under Current Policy, FY 2016*	% Penalized Under Improvement Buy-Down Scaled by DSH	Average Penalty Under Current Policy, FY 2016 in Thousands of Dollars	Average Penalty Under Improvement Buy-Down Scaled by DSH
<b>Safety-Net (top 20% DSH)</b>	34.0%	34.0%	\$525	\$497
<b>Non-Safety-Net (all other)</b>	23.1%	23.1%	\$436	\$424
<b>Difference</b>	<b>10.9%</b>	<b>10.9%</b>	<b>\$89</b>	<b>\$73</b>

Bolded comparisons are significant at p<0.05.

\*For the improvement policy options, which require multiple years of data to calculate, FY 2016 performance with and without the improvement buy-down are presented. These simulations only include hospitals with data in both FY 2015 and FY 2016.

## 6. Program-specific Policy Option: Restructured HACRP

As currently defined, the HACRP is a penalty program with a single policy cliff to identify hospitals in the top quartile of performance on patient safety, with a flat 1% penalty applied to penalized hospitals. Restructuring the overall program parameters could affect who gets penalized, and by how much, and therefore could impact providers disproportionately serving beneficiaries with social risk factors. Several changes are proposed and simulated below, based on assumptions of budget neutrality.

### a. Calculate Penalties Using Base DRG Payments

In contrast to the Hospital Readmissions Reduction Program (HRRP) and the Hospital Value-Based Purchasing Program (HVBP), the HACRP assesses penalties based on total Medicare IPPS payments rather than base DRG payments. As a result, the HACRP has disproportionately greater financial impacts on safety-net and teaching hospitals, since IPPS payments include add-on payments for disproportionate share hospital (DSH) and Indirect Medical Education (IME) that translate into larger calculated penalties. The rationale for moving to base DRG payments is to level the playing field across hospitals in terms of the dollar impacts on safety-net hospitals compared with other hospitals. Since DSH payments are intended to provide additional resources for safety-net hospitals that disproportionately serve the poor and uninsured, determining penalties based on these additional payments effectively reduces these resources to support care for beneficiaries with social risk factors. Therefore, while this policy option does not directly address social risk, it may have a disproportionate impact on safety-net providers.

To assess penalties based on DRG rather than IPPS payments but remain budget-neutral, the penalty amount would need to be increased from the current 1% to 1.3%. This policy option would not change the proportion of hospitals penalized, but would reduce the financial impact on safety-net hospitals, as shown in Table 6.20, reducing the disproportionate dollar impact on safety-net hospitals.

**Table 6.20: Penalties Under Base DRG Instead of Total IPPS Payments**

Hospital Type	% Penalized Under Current Policy	% Penalized Under Shift to Base DRG Payments	Average Penalty Under Current Policy in Thousands of Dollars	Average Penalty Under Shift to Base DRG Payments in Thousands of Dollars
<b>Safety-Net (top 20% DSH)</b>	29.8%	29.8%	\$606	\$482
<b>Non-Safety-Net (all other)</b>	20.1%	20.1%	\$445	\$456
<b>Difference</b>	<b>9.7%</b>	<b>9.7%</b>	<b>\$161</b>	<b>\$26</b>

### b. Move to a Linear Penalty Scale

A second limitation of the current approach to determining penalty status based on a single threshold (top quartile) is that the program may not incentivize improvements by very low performers who are far from the 75<sup>th</sup> percentile cutoff threshold. It also does not differentiate between hospitals with very different performance (e.g., at the 75<sup>th</sup> versus 99<sup>th</sup> percentiles) and may seem to have an unduly large

impact on those just over the 75<sup>th</sup> percentile versus those just below that cutoff. One way to address this problem is to shift to a linear penalty performance scale, wherein the penalty amount is based on the hospital's performance along a broader distribution scale.

Two choices that would need to be made to implement this policy option are the proportion of hospitals to be penalized (i.e., increasing from 25% to 50% or 75%; see the Appendix to this chapter for 50% example) and the maximum penalty to be levied over the current 1%. Table 6.21 illustrates the change in penalties from moving to a linear penalty scale, penalizing 75% of all hospitals based on their relative performance, with a 1.25% penalty cap. The option shown also includes moving to the base DRG as the penalty target, and is budget-neutral (i.e. total penalty dollars are equivalent or higher than the current program). This policy option does not directly address social risk, but could have a disproportionate impact on safety-net providers depending on the performance distribution of these hospitals.

These results show that moving to this version of the linear scale would reduce the disproportionate dollar impact on safety-net hospitals significantly, but that safety-net hospitals would still be much more likely to be penalized than other hospitals. It would also broaden penalties significantly, which may not be in line with program goals. Additional versions of this approach are shown in the Appendix to this chapter.

**Table 6.21: Penalties Under Linear Scale with 75% of Hospitals Penalized, Penalties Capped at 1.25% of Base DRG Payments**

Hospital Type	% Penalized Under Current Policy	% Penalized Under Linear Scale, 75% of Hospitals, 1.25% Cap	Average Penalty Under Current Policy	Average Penalty Under Linear Scale, 75% of Hospitals, 1.25% Cap
<b>Safety-Net (top 20% DSH)</b>	29.8%	80.0%	\$606	\$234
<b>Non Safety-Net (all other)</b>	20.1%	73.6%	\$445	\$183
<b>Difference</b>	<b>9.7%</b>	<b>6.4%</b>	<b>\$161</b>	<b>\$51</b>
Bolded comparisons are significant at p<0.001				

## **7. CMS-planned changes to the HACRP on scoring system and PSI-90 (see FY2017 IPPS Final Rule)**

### **a. Harms-based weighting**

AHRQ has revised the PSI-90 measure to include three additional component measures (PSI-9, PSI-10, and PSI-11), to remove PSI-07, and to incorporate harm- and volume-based weights for PSI-90 version 6, which was recently endorsed by NQF, and which CMS will adopt. These changes, especially the harms-based weighting, could affect the observed impact of social risk on hospitals' performance on the PSI-90 measure, as the three components with a more than 10% increase in weight, PSI-9, PSI-11, and PSI-13, are all ones that dually enrolled beneficiaries have higher odds of experiencing (Table 6.22).

**Table 6.22. PSI-90 version 6, Harms-based and volume-based weights**

Number	Name	Odds of Event for Dual Enrollees*	Current Weights	New Weights†	Change
<b>PSI-3</b>	Pressure Ulcer	1.06	2.3%	3.6%	+1.3%
<b>PSI-6</b>	Iatrogenic Pneumothorax	<b>0.92</b>	7.1%	9.6%	+2.5%
<b>PSI-7</b>	Catheter-Related BSI‡	<b>1.36</b>	6.5%	1.6	-4.9%
<b>PSI-8</b>	Postop Hip Fracture	<b>1.33</b>	0.1%	0.9%	+0.8%
<b>PSI-9</b>	Periop hemorrhage/hematoma	<b>1.03</b>	NA	14.8%	+14.8%
<b>PSI-10</b>	Postop Phys/Metabolic Derangement	0.95	NA	4.8%	+4.8%
<b>PSI-11</b>	Postop Respiratory Failure	<b>1.14</b>	NA	21.2%	+21.2%
<b>PSI-12</b>	Periop PE/DVT	<b>0.91</b>	25.8%	18.1%	-7.7%
<b>PSI-13</b>	Postop Sepsis	<b>1.17</b>	7.4%	23.7%	+16.3%
<b>PSI-14</b>	Postop Wound Dehiscence	<b>1.37</b>	1.7%	0.9%	-0.8%
<b>PSI-15</b>	Accidental Puncture/Laceration**	0.99	49.2%	0.8%	-48.4%

\*Risk-adjusted, within-hospital odds. Odds ratios greater than 1 indicate increased risk of event; odds ratios less than 1 indicate reduced risk. Bolded comparisons are significant at p<0.05.

†The new weights above are proxies, pending release of the final specifications by AHRQ.

‡PSI-7 will be removed from the final modified PSI-90 composite measure as it duplicates the CDC's CLABSI measure.

\*\*Definition of event changed to only include events of high severity in version 6.

When these changes were simulated, under the revised PSI-90 measure, the gap between safety-net and non-safety-net hospitals widened significantly, from 9.8% to 13.7% (Table 6.23). This finding suggests that the new weighting scheme would likely be associated with a more negative impact for the safety-net.

**Table 6.23: Percent Penalized Under New PSI-90 Weighting Scheme and 3 Additional Components**

Hospital Type	% Penalized Under Current Policy	% Penalized Under New PSI-90 Weights/Components
<b>Safety-Net (top 20% DSH)</b>	29.8%	32.5%
<b>Non-Safety-Net (all other)</b>	20.1%	18.8%
<b>Difference</b>	<b>9.7%</b>	<b>13.7%</b>

Bolded comparisons are significant at p<0.05.

#### **b. Winsorized Z-Scores and Harms-Based Weights for PSI-90**

CMS has revised the HACRP scoring methodology to use winsorized z-scores instead of decile-based scores to improve the precision of the program and reduce ties, which led to unusual performance patterns (see 81 Fed. Reg. 56761). Z-scores standardize hospitals' performance based on the number of standard deviations from the average (positive or negative) and allow greater comparability between measures with different distributions and units of measurement. Winsorizing trims outlier hospitals to the 5<sup>th</sup> and 95<sup>th</sup> percentile scores.

Table 6.24 shows that the proportion of safety-net hospitals penalized under this revised scoring scheme would increase. Combining the two proposed changes (z-scoring and harms-based weights) would increase the difference in proportion penalized even further for safety-net hospitals compared to non-safety-net hospitals, from 10% to 14%. Therefore, the changes planned for future years of the HACRP may be associated with a higher penalty burden for the safety net, even though these changes may better reflect hospitals' performance.

**Table 6.24: Percent Penalized under Winsorized Z-scores and Harms-Based Weights**

Hospital Type	% Penalized Under Current Policy	% Penalized Under Winsorized Z-scores	% Penalized Under Winsorized Z-scores and Harms-Based Weights
<b>Safety-Net (top 20% DSH)</b>	29.8%	34.3%	36.3%
<b>Non-Safety-Net (all other)</b>	20.1%	22.6%	22.1%
<b>Difference</b>	<b>9.7%</b>	<b>11.7%</b>	<b>14.2%</b>

Bolded comparisons are significant at p<0.05.

#### 8. Changes to the HACRP on scoring system and PSI-90 (see FY2017 IPPS Final Rule) Plus Adjustment or Stratification

To address the higher penalty burden for the safety net under CMS' planned changes to the program scoring methodology and updates to the PSI-90 measure, policy options likely to change the proportion of safety-net hospitals penalized or the penalty amount — namely adjustment for social risk and stratification — were modeled. As indicated earlier, these options have drawbacks, most significantly in terms of potentially masking disparities or excusing bias, discrimination, or poor quality. They would be budget neutral. Table 6.25 shows the proportion penalized under the proposed CMS changes under each of these three policy options.

Similarly to the findings in the adjustment simulation above, adjusting for dual enrollment status and DSH index reduced disproportionate penalties for the safety net significantly. Stratification equalized the proportion of hospitals penalized across groups.

**Table 6.25: Percent Penalized under Winsorized Z-scores and Harms-Based Weights plus Adjustment or Stratification**

Hospital Type	% Penalized under Z-scores & new PSI-90 Weights	% Penalized Under Z-scores & New PSI-90 Weights, Plus:		
		Plus Adjustment for Social Risk (CDC for HCC and DSH Index)	Plus Adjustment for Social Risk (PSI-90 dual, CDC for DSH)	Plus Stratification (2 strata)
<b>Safety-Net (top 20% DSH)</b>	36.3%	31.5%	30.5%	24.9%
<b>Non-Safety-Net (all other)</b>	22.1%	23.3%	23.6%	25.0%
<b>Difference</b>	<b>14.2%</b>	<b>8.2%</b>	<b>6.9%</b>	-0.1%

Bolded differences are significant at p<0.001.

### C. Summary of Policy Options

Tables 6.26 a-c present the proportions of hospitals penalized, and summarize the amount of the penalty under each option. Of the tested options, only those that included stratification of program scores had a major impact on penalties. Individual-level adjustment for social risk had very little impact; hospital-level adjustment had a larger impact. Allowing improvement buy-downs of the penalties and moving to a base DRG-based penalty reduced the penalty amount for safety-net hospitals. Additional options are shown in the Appendix to this chapter.

**Table 6.26a Policy options (adjustment, stratification, program restructuring, CMS proposed changes) – Safety-Net Versus Other Hospitals**

Option	Description	Percent Hospitals Penalized			Average Penalty (\$ thousands)		
		Safety Net	Rest	Difference	Safety Net	Rest	Difference
<b>1</b>	Current HACR program (FY 2015)	29.8%	20.1%	<b>9.7%</b>	\$606	\$446	<b>\$161</b>
<b>2</b>	<b>Adjustment for social and/or medical risk options</b>						
2a	Adjust PSI-90 for dual	32.6%	22.5%	<b>10.1%</b>	\$645	\$461	<b>\$184</b>
2b	Adjust PSI-90 for disabled	34.0%	22.7%	<b>11.3%</b>	\$631	\$469	<b>\$162</b>
2c	Adjust PSI-90 for dual, disabled, r/e, census-SES	31.8%	22.7%	<b>9.1%</b>	\$643	\$460	<b>\$183</b>
2d	2c, plus adjust CDC for DSH Index	27.8%	24.1%	<b>3.7%</b>	\$665	\$451	<b>\$214</b>
2e	Adjust PSI-90 for medical complexity	33.8%	22.6%	<b>11.2%</b>	\$627	\$463	<b>\$165</b>
2f	2e, plus adjust CDC for Case Mix Index	33.5%	22.8%	<b>10.7%</b>	\$575	\$399	<b>\$176</b>
<b>3</b>	<b>Stratification options</b>						
3a	Stratify into 2 groups (top 20% DSH vs. other)	24.9%	24.6%	0.3%	\$641	\$386	<b>\$255</b>
3b	Stratify into 5 groups (DSH quintiles)	24.9%	23.3%	1.6%	\$641	\$418	<b>\$223</b>
<b>6</b>	<b>Program restructuring options</b>						
6a	Levy penalty on base DRG rather than IPPS payment	29.8%	20.1%	<b>9.7%</b>	\$482	\$456	\$26
6b (ii)	Linear penalty scale: 75% of hospitals, 1.25% maximum	80.0%	73.6%	<b>6.4%</b>	\$234	\$183	<b>\$51</b>
<b>7</b>	<b>CMS-Planned Changes</b>						
7a	Modified PSI-90	32.5%	18.7%	<b>13.7%</b>	\$636	\$500	<b>\$136</b>
7b	Winsorized z-score	34.3%	22.6%	<b>11.7%</b>	\$606	\$439	<b>\$167</b>
7c	Winsorized z-score and Modified PSI-90	36.3%	22.1%	<b>14.2%</b>	\$652	\$482	<b>\$170</b>

Bolded comparisons are significant at p<0.001.



Table 6.26b Improvement Policy Options – Safety-Net Versus Other Hospitals

Option	Description	Percent Hospitals Penalized			Average Penalty (\$ thousands)		
		Safety Net	Rest	Difference	Safety Net	Rest	Difference
<b>1</b>	Current HACR program (FY 2016) with winsorized z-scores (to calculate improvement)	34.0%	23.1%	<b>10.9%</b>	\$525	\$436	<b>\$89</b>
<b>4</b>	Allow improvement buy-down of penalty	34.0%	23.1%	<b>10.9%</b>	\$475	\$391	<b>\$84</b>
<b>5a</b>	Allow improvement buy-down, multiplied by DSH Index	34.0%	23.1%	<b>10.9%</b>	\$497	\$424	<b>\$73</b>
<b>5b</b>	Allow improvement buy-down, multiplied by DSH +1	34.0%	23.1%	<b>10.9%</b>	\$449	\$380	<b>\$70</b>

Bolded comparisons are significant at p<0.001.  
Notes: FY 2016 program measures and weights used to determine baseline performance to compare improvement with or without DSH bonus options. This analysis only included hospitals with FY 2015 and FY 2016 performance data to calculate improvement scores.

Table 6.26c Program Changes, Plus Policy Options (adjustment, stratification) – Safety-Net Versus Other Hospitals

Option	Description	Percent Hospital Penalized			Average Penalty (\$ thousands)		
		Safety Net	Rest	Difference	Safety Net	Rest	Difference
	Program Changes: Winsorized z-score and Modified PSI-90	36.3%	22.1%	<b>14.2%</b>	\$652	\$482	<b>\$170</b>
<b>8a</b>	<b>Adjustment options</b>						
(i)	Adjust PSI-90 for dual	35.5%	22.3%	<b>13.2%</b>	\$546	\$386	<b>\$160</b>
(ii)	Adjust PSI-90 for dual; adjust CDC for DSH Index	30.5%	23.6%	<b>6.9%</b>	\$550	\$388	<b>\$162</b>
(iii)	Adjust PSI-90 for dual; adjust CDC for mean HCC score	33.8%	22.7%	<b>11.1%</b>	\$544	\$384	<b>\$161</b>
(iv)	Adjust PSI-90 for dual; adjust CDC for DSH and HCC	30.6%	23.6%	<b>7.1%</b>	\$552	\$386	<b>\$166</b>
(v)	Adjust CDC measures for DSH and HCC	31.5%	23.3%	<b>8.2%</b>	\$659	\$470	<b>\$189</b>
<b>8b</b>	<b>Stratification options</b>						
(i)	Stratify into 2 groups (safety-net and non-safety-net)	24.9%	25.0%	-0.1%	\$659	\$475	<b>\$183</b>
(ii)	Stratify into 5 groups (DSH quintiles)	24.9%	25.0%	0.0%	\$659	\$465	<b>\$194</b>

Bolded comparisons are significant at p<0.001  
Notes: FY2015 performance data with harms-weights applied to current PSI-90 measure, and winsorized z-scores to determine hospitals' scores to represent a revised baseline performance.

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying Relationships

- Both beneficiary social risk (dual enrollment status, disability as the original reason for Medicare entitlement, and Black race) and hospital makeup (highest quintile in terms of disproportionate share hospital (DSH) payments, beneficiaries with disabilities, or beneficiaries identified as Black) were independently and significantly associated with higher rates of patient safety events in the PSI-90 measure, suggesting both beneficiary factors and hospital factors contribute to patient safety events.

#### Program Impacts

- Safety-net hospitals (defined as those in the top quintile of DSH Index) and hospitals with a higher proportion of Black beneficiaries were more likely to be penalized under the HACRP.

#### Policy Simulations

- In policy simulations based on the current program and CMS-planned program changes, risk-adjusting the PSI-90 measure for beneficiary social risk and/or unmeasured medical complexity had minimal impact on penalties, as the PSI-90 makes up only a small portion of hospitals' total score under the HACRP.
- Adjusting CDC's Hospital-Acquired Infection measures at the hospital level for DSH Index as a proxy for beneficiary social risk, and average HCC scores as a proxy for unmeasured medical complexity, reduced the differences in penalty status between safety-net and non-safety-net hospitals.
- Stratifying hospitals into two groups (safety-net and non-safety-net) to determine penalties equalized the proportion of hospitals penalized by safety-net status.
- Restructuring the program to a linear penalty performance and basing penalty calculations on base DRG payments instead of total IPPS payments reduced the likelihood of penalties for the safety-net and reduced their average penalty dollars.
- Rewarding improvement had a limited impact on penalties.
- Future changes to the program (harms-based weighting in the modified PSI-90 and winsorized z-scores) are expected to lead to higher penalty rates for safety-net hospitals, but may better reflect performance differences and the severity of harms from safety events.

### B. Strategies and Considerations

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors.

**STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key patient safety and infection measures.**

The ability to measure and track patient safety events and infection rates for beneficiaries with social risk factors over time is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible.

However, since CDC data are currently only collected by hospital ward, disparities at the patient level cannot be tracked. Therefore, a strategy should be developed to capture data that would allow calculation and reporting of performance by important subgroups. This strategy would allow the Department and hospitals, as well as consumers, to better-understand who performs well for dually-enrolled beneficiaries and where there are particular areas for targeted improvement. This is consistent with the policy goal of encouraging reductions in disparities in quality and outcomes, and also promotes transparency to facilitate consumer choice.

When adequate data are available, key patient safety and infection measures stratified by social risk should be developed and considered for hospital preview reports and/or public reporting in places such as Hospital Compare, so that hospitals, health systems, policymakers, and consumers can see and address important disparities in care. CMS' Office of Minority Health has started to develop and pilot approaches to reporting health plan quality data by race and ethnicity and other patient subgroups through its website (see <https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH-DPAG-StatisticsAndData.html>). While not all measures may lend themselves to reporting by patient social risk subgroups, a key subset of measures should be pursued for subgroup reporting at the hospital level.

**CONSIDERATION 2: Consider prospectively monitoring for potential unintended consequences of the HACRP; the cumulative penalties across the three hospital value-based purchasing programs should be tracked for hospitals that disproportionately serve beneficiaries with social risk factors.**

Prospectively monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change. The HACR program is a relatively new program with new measures introduced each year. Prospectively monitoring the financial impact of this Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the program continues to change, such as changes to the scoring, measures and weighting.

For hospitals in particular, although penalties from a single program may be small, the additive penalties across all three programs (HRRP, HVBP and HACRP) may be significantly larger. Safety-net hospitals and other hospitals who disproportionately serve beneficiaries with social risk factors may be more likely to

be negatively impacted across the three hospital programs. Thus, monitoring should include both unintended consequences of the HACRP as well as cumulative performance across the hospital programs, with a focus on hospitals who disproportionately serve beneficiaries with social risk factors.

### **STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

#### **CONSIDERATION 1: Patient safety measures used in the current HACRP should continue to be examined to determine if adjustment for social risk factors is appropriate.**

Directly adjusting the PSI-90 measures for dual enrollment or other social risk factors, while a relatively precise approach to adjustment compared to broader ward-based or hospital-based adjustment, risks masking modifiable disparities in care, and limiting future opportunities to analyze and highlight disparities. Further, depending on how such an adjustment was implemented, this strategy may risk excusing providers delivering low-quality care to at-risk populations. Additionally, because the PSI-90 comprises a relatively small portion of the total score, adjusting this measure for dual enrollment or other social risk factors would not make a significant difference in performance assessment or financial impacts in this program.

Adjusting the CDC measures for hospital-level measures of medical or social risk would be a crude approach that adjusts for both patient and hospital factors contributing to higher risk of events. Given the findings in this chapter demonstrating that both beneficiary and hospital factors contribute to outcomes, this could inappropriately reward hospitals that provide low-quality care to an even greater degree than the patient-level risk adjustment considered for the PSI-90 measure.

#### **CONSIDERATION 2: The HACRP should be updated with AHRQ's revised PSI-90 measure, as CMS plans to do in FY2018.**

The modified PSI-90 composite measure now reflects the degree of harms associated with the patient safety events. The move to harms-based weighting and incorporation of additional measures into the new version of the PSI-90 measure is a positive change for the measure because it better reflects the range and severity of harms from patient safety events. This is also a positive change for the program, because it will identify hospitals with the highest rates of severe harms. Adopting the modified PSI-90 measure in the program starting in FY2018 is therefore consistent with the policy goal of fair and accurate measurement.

The drawback is the negative impact on the safety net, but a superior measure should not be delayed because of this impact. Instead, additional effort should be devoted to addressing this in other ways, as outlined in the considerations that follow.

**CONSIDERATION 3: Restructure the program to minimize differential impacts on hospitals disproportionately serving beneficiaries with social risk factors and incent improvement along the continuum of performance by determining penalties using base DRG payments and using a linear penalty scale rather than a binary penalty, with a continuous scoring approach, as included in the President’s FY2016 budget.**

There are additional program changes that warrant consideration based on the analyses in this Chapter that have relevance to safety-net hospitals. Based on the available evidence, in the long-term the HACRP should be considered for restructuring as proposed in the FY 2016 legislative proposal to Congress and included in the President’s Budget. Program restructuring seems to provide the most significant overall benefits to the HACRP; moving to a linear penalty scale and calculating penalties on base DRG rather than total IPPS payments both reduce the disproportionate impact on the safety net, teaching hospitals, and other facilities that receive additional non-DRG compensation, and improves the program’s incentive structure to reward improvement across a wider range of hospitals. These potential program changes are consistent with policy goals to improve quality and outcomes to promote delivery system reform and achieve value-driven care.

Moving to the winzorized z-score methodology instead of the decile-based scoring, as CMS plans starting in FY2018, is also supported and could provide a foundation for moving in the future to a linear penalty scale. Hospitals’ performance on patient safety and healthcare associated infections are better reflected using a continuous scoring methodology, and this method also reduces ties and allows more precise assessment of improvement over time.

In addition, based on the net financial impact of the three hospital programs on safety-net hospitals, in the long term CMS should consider coordinating programmatic focus across the three hospital payment programs and aligning measures to avoid duplication of measures that may result in disproportionate payment impacts on safety-net hospitals who serve beneficiaries with social risk factors.

**CONSIDERATION 4: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

**In particular, patient-level clinical data from the CDC healthcare associated infection measures should be examined and considered for risk adjustment. A long-term alternative would be to develop alternate safety measures such as all-harms measures using EHR data.**

The clinical risk-adjustment of the patient safety and hospital-acquired infection measures should be improved to ensure the measures adequately adjust for differences in patients’ clinical risk, so that fair comparisons for hospital accountability and performance assessment can be made to hold providers to

the same fair standard. To that end, additional analyses are recommended for measure developers such as AHRQ and CDC to determine whether adjusting key components of the patient safety or healthcare associated infection measures for frailty, functional limitations, prior hospitalizations or nursing home residence, or other markers of immune system deficiencies or unmeasured medical complexity may better account for susceptibility to infection and patient safety events. Such adjustments may not be appropriate for all patient safety measures – some are surely never-events regardless of clinical risk – but the evidence suggesting differential susceptibility to infection based on underlying medical risk is strong and should be considered.

For example, preliminary exploratory analyses of frailty-related diagnoses using claims data suggest these types of markers may be useful in improving clinical risk-adjustment models and could partially explain the observed relationship between dual enrollment and infection measures (See the Appendix on MSPB measure in HVBP chapter). Additional work in Study B may investigate some of these potential risk factors not currently available in Medicare claims or administrative data, such as measures of functional status from patient surveys or patient assessments.

A critical component of the HACRP that could not be fully evaluated for the current report due to limited data is the issue of the CDC measures. These measures are not reported at the patient level, are not risk-adjusted at the patient-level, and are collected on only a subset of hospitalized patients. As discussed earlier, without the ability to clinically risk-adjust these measures using patient-level clinical information, the higher infection rates observed in hospitals that disproportionately serve socially at-risk patients may be partly due to the lack of clinical risk-adjustment. This is particularly problematic given that the CDC measures make up the majority of the HACRP performance. Hospitals' average medical risk scores using HCCs and share of patient social risk using the DSH Index were also positively correlated, supporting the notion that the lack of clinical risk-adjustment in the CDC measures may contribute to the poorer observed performance in safety-net hospitals who disproportionately serve socially at-risk patients. However, until patient-level data are available for these measures, such suppositions are unproven. This is a critical area for future research.

Currently CDC relies on a manual data entry system to collect information from healthcare facilities on infections, which limits the amount of clinical or demographic information that can be feasibly collected. However, it is working towards an electronic data entry process through EHRs and surveillance software vendors (for more information on a broader plan, see <https://health.gov/hcq/prevent-hai-action-plan.asp>). This would allow capture of more clinical and laboratory data to support better risk-adjustment approaches. This report supports acceleration of CDC's efforts towards an electronic data capture system to facilitate and enhance patient-level risk-adjustment, as well as to support research to better understand the role of beneficiary social risk and underlying clinical risk on the risk of healthcare associated infections.

If patient-level data cannot be collected, alternative sources of infection data should be considered, including electronic health record data, clinical data registries and other emerging sources. Developing

the next generation of patient safety measures such as an all-harms measure that makes use of rich electronic clinical information on individual patients could improve the validity and usefulness of patient safety measures to improve inpatient care. In addition, better measures would improve transparency to consumers of the risks to their own safety, and facilitate their choice of hospital. CMS is actively pursuing many of these options, and this Report supports CMS efforts to continually improve the data and measures used to assess patient safety.

### **STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

#### **CONSIDERATION 1: Consider creating financial incentives for achievement of low patient safety event rates and/or infection rates, or improvement in these measures, among socially at-risk beneficiaries.**

Achievement and/or improvement in high-risk populations should be rewarded, and this could be done by adding targeted payment adjustments to existing value-based purchasing programs such as HACRP. Such opportunities would help counteract any disincentives under this program to caring for high-risk populations.

The program could reward hospitals for achieving low or improved rates in socially at-risk beneficiaries with payment adjustments funded in part from the HACRP penalties, essentially re-investing those penalties into improving patient safety in a budget-neutral way. Incentives funded by HACRP penalty revenues could be used to reward hospitals that demonstrate reduction of disparities in patient safety or demonstrate achievement of low safety events or infections in socially at-risk beneficiaries; this would meet the policy criterion of encouraging reductions in disparities. It may also be reasonable to ask these hospitals to re-invest the financial incentives into infrastructure and patient safety quality improvement efforts, or participate in learning collaboratives to share best practices.

These concepts could also be integrated into a linear penalty scale, if such a change is pursued. Based on the decreasing rate of patient safety events and infections observed since public reporting began for these measures, these changes would acknowledge the work and achievement in improving patient safety by all hospitals and especially safety-net hospitals with limited resources.

#### **CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to providers that serve beneficiaries with social risk factors.**

The best way to reduce the disproportionate impact of the HACRP on hospitals that disproportionately



serve beneficiaries with social risk factors is to reduce adverse events in those hospitals; this would have a tremendously beneficial impact on the Medicare beneficiaries served by these providers. Targeting existing or new QI efforts could also help prepare hospitals for participating in alternative payment models, under which hospitals may be at greater financial risk for the costs associated with patient safety events.

To that end, CMS should build on learnings from the Partnership for Patients hospital engagement networks and could consider tasking the Quality Improvement Organizations - Quality Improvement Networks (QIO-QINs) to focus on hospitals that disproportionately serve socially at-risk beneficiaries. QIO-QINs can develop and offer targeted resources and technical assistance that addresses risk factors for socially at-risk patients and unique challenges facing safety-net hospitals. Another possibility is for QIO-QINs to partner with patient safety organizations (PSOs) who can aggregate data and share learnings across providers from these relatively rare events. They could expand peer-based collaboratives to address patient safety at safety-net institutions, so that similar hospitals can share best practices and identify effective strategies for their socially at-risk patient populations. A similar collaborative initially run by the Michigan Health & Hospital Association and now spread nationwide has demonstrated remarkable improvements in reducing bloodstream infections and catheter use, though this collaborative did not focus on safety-net providers per se.<sup>25-27</sup>

Additional research may also be needed to determine how best to specifically address the patient safety needs of these high-risk populations; the Agency for Healthcare Research and Quality (AHRQ) could build on its existing research to help develop additional patient safety toolkits targeted to socially at-risk patient populations and safety-net hospitals. For example, AHRQ has developed a toolkit addressing limited English proficiency as one factor in patient safety events.<sup>28</sup>

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve low patient safety event rates and/or infection rates for beneficiaries with social risk factors.**

Patient safety and quality improvement efforts to date have focused on hospital processes and provider education. Demonstrations and research on care innovations and interventions that specifically address patient safety and infection risk factors in beneficiaries with social risk factors could enhance existing patient safety QI efforts. For example, long-stay nursing home residents or patients who reside in poor neighborhoods with higher community rates of colonization may have a higher risk of infections upon hospitalization; they may benefit from additional infection prevention protocols upon hospital admission. Research to demonstrate the effectiveness of such targeted approaches could inform QI efforts.

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# CHAPTER 7: The Hospital Value-Based Purchasing Program

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## In This Chapter:

- *Is there a relationship between patient social risk and performance on the metrics that comprise the Hospital Value-Based Purchasing (HVBP) program?*
- *Is there a relationship between hospital social risk profile and performance on the metrics that comprise the program?*
- *Are hospitals that serve a high proportion of beneficiaries with social risk factors more likely to receive penalties under this program?*
- *What impact would policy options, including adjustment and stratification, have on hospitals performance and bonuses or penalties?*

This chapter presents findings on the relationship between beneficiary social risk, hospital social risk, and performance under the Hospital Value-Based Purchasing (HVBP) program.

## Key Findings:

### Underlying Relationships

- Dually-enrolled beneficiaries had higher spending per care episode, as modeled using the Medicare Spending per Beneficiary parameters; differences were primarily driven by post-acute spending, both in terms of the frequency of use of more expensive settings and the spending within each setting.
- Social risk factors were generally protective for 30-day mortality measures, with the exception of disability and rural status, which were associated with higher mortality at both the beneficiary and hospital level.

### Program Impacts

- The worse performance by safety-net hospitals (defined as the top 20% of disproportionate share hospital (DSH) index) on the total HVBP performance score was driven primarily by poor performance on patient experience measures. These hospitals also performed slightly worse than non-safety-net hospitals on process of care measures and efficiency, and on the patient safety components of the outcome domain. However, safety-net hospitals performed equivalently to other hospitals on the mortality components of the outcome domain.

- Safety-net hospitals were more likely to receive penalties and less likely to receive bonuses under HVBP.

#### Policy Simulations

- Adjusting the MSPB efficiency measure for dual status was associated with slight improvements in performance for safety-net providers.

#### **Strategies and Considerations for HVBP**

<b>SUMMARY OF STRATEGIES AND CONSIDERATIONS</b>	
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key hospital quality and resource use measures.
CONSIDERATION 2:	Consider developing key hospital quality and resource use measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors, where feasible.
CONSIDERATION 3:	When feasible, consider developing and introducing a health equity measure or domain into the HVBP program to measure disparities and incent a focus on reducing them.
CONSIDERATION 4:	Consider prospectively monitoring for potential unintended consequences. In particular, the cumulative penalties across the three hospital programs for providers that serve beneficiaries with social risk factors should be tracked.
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>	
CONSIDERATION 1:	The measures used in the current HVBP program should continue to be examined to determine if adjustment for social risk factors is appropriate.
CONSIDERATION 2:	Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Consider providing additional financial incentives for achievement and/or improvement in quality and outcomes in beneficiaries with social risk factors.
CONSIDERATION 2:	Consider using existing or new quality improvement programs to provide targeted technical assistance to hospitals that disproportionately serve beneficiaries with social risk factors.
CONSIDERATION 3:	Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors who are hospitalized.

## I. Introduction

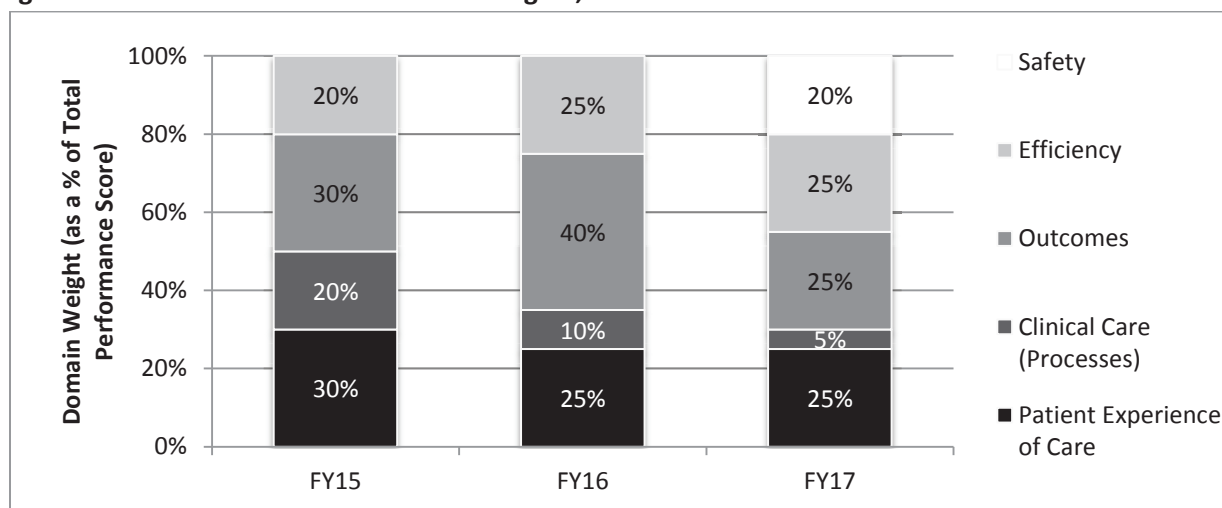
### A. Background

The Hospital Value-based Purchasing program was authorized by section 3001(a) of the Affordable Care Act (ACA) and first started applying value-based incentive payment adjustment factors to the base-operating DRG payment amounts applicable to all discharges of participating hospitals in fiscal year (FY) 2013. The budget-neutral program works by withholding a percentage of hospitals' Medicare payments for inpatient services each year and redistributing the total amount of such withhold to hospitals based on their performance on quality measures. Hospitals can earn back the withheld payment based on performance, so the maximum penalty is the withheld amount, while the bonus for high performance may be greater than the amount withheld. Withholding started at 1% of a hospital's base-operating DRG payments in FY 2013 and increased a quarter of a percent each year, up to a cap of 2% for FY2017 and beyond.

Hospital performance in the HVBP program is assessed on measures grouped into quality domains that assess patient experience (e.g., whether doctors and nurses communicated well), processes of care (e.g. aspirin for a heart attack), clinical outcomes (e.g., mortality for patients admitted with pneumonia), efficiency (costs of care per episode), and safety measures (e.g., in-hospital infection rates). The program included four of these domains from FY 2015 through FY 2016. From FY 2017 onwards, a new domain, patient safety will be added to HVBP, while the Clinical Care domain will now comprise two subdomains, Process and Outcome (previously separate domains). By FY 2018, the four HVBP domains will be equally weighted. For a full list of measures included in each domain, please see the Appendix to this chapter.

For each measure, hospitals are generally scored on both achievement and improvement, with achievement scored on a scale of 1 to 10 based on pre-determined performance thresholds calculated using historical national data (median performance rate) and benchmarks (up to mean of the top decile of national performance). Improvement is also scored on a scale of 1 to 10, based on improvement between the baseline period and the performance period. Hospitals earn the higher of their achievement or improvement points.

Measure scores are summed within each domain, and domain scores are combined to calculate a hospital's Total Performance Score (TPS), which is used to determine penalties and bonuses (Figure 7.1). Although certain parameters are described in statute, the Secretary of Health and Human Services had discretion in designing the scoring methodology for this program.

**Figure 7.1. HVBP Domains and Domain Weights, FY 2015-2017**

Note that in FY 2015 and FY 2016, the safety measures are included in the “outcomes” domain; in FY 2017 these measures are broken out into their own domain. Over time, the weight of the processes of care (“clinical care”) domain has decreased significantly, while the weight of the combined outcomes/safety and efficiency domains have increased.

#### **B. Existing Research on Differences Related to Social Risk in the HVBP Program and its Measures**

As the HVBP program has been operational for a number of years, there is a body of existing research related to disproportionate impacts from the program on safety-net hospitals as well as disparities related to patient social risk from component measures. For example, prior work has demonstrated that safety-net hospitals are more likely than other hospitals to be penalized under HVBP, and face larger payment penalties both in terms of absolute dollars and on a per-bed basis.<sup>1-4</sup> Furthermore, disparities may be widening over time, as safety-net hospitals have been shown to improve more slowly than non-safety-net hospitals.<sup>5</sup> Some researchers have raised concerns that the scoring methodology of HVBP program may inherently disadvantage hospitals who serve the most vulnerable as it applies an “elastic ruler” that does not evenly score absolute improvements.<sup>6</sup> Others have pointed out that performance on these programs may have financial impacts beyond the program penalties themselves: credit rating agencies such as Fitch and Moody’s have indicated they will also incorporate performance on patient experience ratings used in the HVBP program into hospital bond ratings.<sup>7</sup> In response, some have recommended assigning rewards specifically to reduce disparities, as well as risk-adjustment and stratified analyses.<sup>1,8-10</sup>

On the other hand, it is feasible that pay-for-performance programs may have the potential to reduce disparities by incenting improved care in the safety-net: a study of the Premier hospital pay-for-performance program, a precursor to HVBP, found mortality disparities for Blacks with congestive heart failure decreased more in hospitals subject to pay-for-performance than control hospitals.<sup>11</sup>

**Clinical Processes of Care:** In terms of specific domains and measures, prior studies have shown that safety-net hospitals, as well as those serving high proportions of Black or Hispanic beneficiaries, perform worse on processes of care.<sup>4,5,12-14</sup>



**Patient Experience:** Hospitals currently use the Hospital Consumer Assessment of Healthcare Providers and Systems (HCAHPS) survey to assess patient experience. Survey methodology already adjusts for many social risk factors such as patient education level, primary language, and self-reported health status.<sup>15</sup> However, patients who are racial and ethnic minorities report worse patient experience, some of which is related to the poorer quality of hospitals in which these patients tend to seek care.<sup>15,16</sup>

**Patient Outcomes:** On outcome measures, findings are more mixed: prior studies have shown significantly lower mortality following acute myocardial infarction, heart failure, and pneumonia for Black and Hispanic Medicare beneficiaries; findings are particularly striking for Hispanics, with up to 50% lower cardiovascular mortality reported in multiple studies.<sup>17-21</sup> For individual poverty, some studies have shown higher mortality following hospitalization, while others have demonstrated no differences; safety-net hospitals and hospitals serving racial and ethnic minorities often report lower mortality rates.<sup>3,4,18,22,23</sup>

Rural patients and rural hospitals have generally been demonstrated to have higher mortality rates,<sup>24-26</sup> though here again findings have been somewhat mixed.<sup>27</sup> The availability of cardiologists, which tends to be significantly lower in rural areas, may also influence mortality rates for low-income patients hospitalized for AMI and HF.<sup>28</sup>

**Efficiency/Resource Use:** The Medicare Spending per Beneficiary (MSPB) measure is currently the sole measure in the Efficiency domain in the HVBP program, but additional condition-specific cost measures for heart attack (AMI) and heart failure episodes will be added in FY2021. The current MSPB measure assesses a hospital's spending compared to the national average for an episode that starts 3 days prior to admission and ends 30 days after discharge. As the measure is new, there is relatively little published research on patterns in performance. MedPAC has reported no differences in MSPB based on a hospital's proportion of patients on SSI and found wide variation in spending related to post-acute care, but did not examine patient-level spending.<sup>29</sup> Many prior studies have shown that dually-enrolled beneficiaries have higher overall spending than non-dually-enrolled beneficiaries, though not in the context of this particular metric.<sup>30,31</sup>

### C. Limitations

Similar to the other chapters in this report, social risk factors assessed in this chapter are limited to those currently available in the Medicare enrollment data, including dual enrollment status, disability, urban/rural location, race and ethnicity, and Census-based community information at the Zip Code Tabulation Areas (ZCTA) level such as median household income and poverty rate. Inpatient claims data and Medicare enrollment data do not include other social risk factors such as social support, educational level, or health literacy, which will be further explored in a later study ("Study B") by the Assistant Secretary for Planning and Evaluation (ASPE).

Another limitation specific to this chapter concerns the measure areas that are not explored in detail here: processes of care and patient experience. These areas are omitted for several reasons. First, process of care measures are not typically adjusted for patient factors, whether clinical or social, because they are considered to involve actions equally relevant for all patients; one example is providing

aspirin for patients having a heart attack. For patient experience of care measures, HCAHPS already adjusts for social risk factors, including race and ethnicity, level of education, self-rated health, and language spoken at home, all of which have been shown to be associated with patients' ratings of their health care experiences;<sup>32,33</sup> thus, social risk factors were not further explored in this setting. As a result, the analyses and policy simulations contained in this chapter only target two of the five program domains: clinical outcomes (including safety) and efficiency. The patient safety measures currently in the HVBP program (originally in the clinical outcomes domain, but moved to the safety domain for FY 2017) are the same measures contained in the Hospital-Acquired Conditions Reduction Program (HACRP), with minor differences in specifications, so these measures are explored in Chapter 6 under the HACRP in detail, and in this chapter to a lesser degree.

Finally, the choice of definition for safety net hospital that was used in this chapter is not a universal one; other researchers may choose to define this group differently, and results could differ as a result.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the measures contained in the HVBP program. Next, it examines the performance of providers serving beneficiaries with social risk factors on these measures, and then the composite performance of these providers under the HVBP program penalty and bonus scheme. Following these analytic sections, a series of policy simulations are presented, focusing on adjustment and changes to the patient safety domain. Finally, strategies and considerations for HVBP are presented, using the strategic framework outlined in Chapter 1: 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and, 3) Reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

Because this chapter includes multiple measures, beneficiary and provider characteristics are shown below for the broadest of them: the Medicare Spending per Beneficiary (MSPB) efficiency measure, described in more detail later in the chapter. Characteristics for the mortality measures, which are comprised of a subset of the beneficiaries and hospitals included in the MSPB, can be found in the Appendix to this chapter.

### **A. Beneficiary Characteristics**

Beneficiary characteristics are presented below for Medicare beneficiaries eligible for the MSPB measure, which nearly includes all inpatient stays. About one third are dually enrolled in Medicaid and Medicare, 30% are disabled, nearly one in six beneficiaries live in low-income neighborhoods (17%) and one fifth live in rural areas (21%). Black beneficiaries make up 12% and Hispanics comprise 6% of all inpatient stays. There is significant overlap between social risk groups; for example, almost 55% of

dually-enrolled beneficiaries originally qualified for Medicare on the basis of a disability rather than age. Table 7.1 shows beneficiary characteristics overall and by social risk group.

**Table 7.1. Beneficiary Characteristics by Social Risk Group**

Beneficiary Characteristics	All	Dually enrolled	Originally entitled to Medicare due to disability	Black	Hispanic	Low-Income ZCTA	Rural
<b>N Stays</b>	3,582,596	1,162,677	1,061,751	425,037	211,668	602,499	759,032
% All stays	100%	32.5%	29.6%	11.9%	5.9%	16.8%	21.2%
% Male	43.5%	38.9%	47.8%	42.2%	44.0%	43.3%	44.5%
% Dually enrolled	32.5%	100%	59.4%	60.0%	68.4%	50.9%	33.2%
% Originally entitled to Medicare due to disability	29.9%	55.2%	100.0%	50.4%	37.9%	42.2%	32.7%
% Black	12.1%	22.4%	20.2%	100%	0%	29.6%	8.1%
% Hispanic	6.0%	12.7%	7.6%	0%	100%	9.9%	2.5%
% Low Income ZCTA	16.8%	26.5%	23.7%	41.3%	27.6%	100.0%	28.6%
% Rural	21.2%	21.7%	23.3%	14.2%	8.9%	35.8%	100%
% High Complexity*	20.0%	28.4%	26.8%	29.8%	26.1%	23.2%	17.3%
*High complexity is defined as the highest 20% of total Hierarchical Condition Category risk score based on a 90-day look-back period as used in the risk-adjustment of the MSPB measure. ZCTA=ZIP code tabulation area							

## B. Hospital Characteristics

Table 7.2 shows the beneficiary populations and structural characteristics of hospitals in the HVBP program. The characteristics of hospitals that predominantly serve beneficiaries with social risk factors are shown (in each case, the top 20% share of the social risk factor). Safety-net hospitals (here defined as those with the top 20% share of DSH payment) serve a higher proportion of beneficiaries that are dually-enrolled, qualified for Medicare on the basis of a disability, Black, and Hispanic, but less often rural. These hospitals are more likely to be larger (300+ beds), major teaching institutions, publicly funded, and located in the South and West:

Table 7.2. Hospital Characteristics by Social Risk Group

Hospital Characteristic	All	Safety-Net (High-DSH)	High-Disabled	High-Black	High-Hispanic	Low Income ZCTA	Rural (non-MSA) Hospital
<b>Beneficiary Population</b>							
% Dually enrolled	32.5%	49.7%	47.3%	40.7%	45.1%	46.7%	36.1%
% Originally entitled to Medicare due to disability	29.9%	37.0%	44.0%	36.6%	30.6%	39.3%	32.9%
% Black	12.1%	21.9%	21.5%	34.0%	13.1%	23.2%	8.1%
% Hispanic	6.0%	15.7%	4.0%	4.9%	23.1%	9.2%	2.3%
% Low Income ZCTA	16.8%	28.3%	39.1%	30.5%	17.8%	54.0%	27.1%
% Rural	21.2%	17.1%	44.8%	19.6%	7.0%	42.9%	77.7%
% High Complexity	20.0%	23.3%	21.1%	22.9%	23.5%	21.3%	17.6%
<b>Structural Characteristics</b>							
Number of Hospitals	3051	613	559	580	578	529	883
Size: large (300+ beds)	24.9%	38.8%	16.5%	37.9%	33.2%	20.2%	3.6%
Size: medium (299-100 beds)	44.5%	42.4%	45.8%	39.7%	46.2%	43.1%	40.1%
Size: small (99-0 beds)	29.8%	18.8%	37.2%	21.7%	19.6%	36.3%	55.8%
Teaching Hospital	8.8%	20.9%	7.0%	18.7%	12.8%	8.6%	0.5%
Ownership: non-profit	60.2%	49.4%	44.0%	50.9%	50.3%	43.3%	53.0%
Ownership: for-profit	25.1%	26.4%	30.4%	24.5%	32.0%	30.8%	22.3%
Ownership: public	14.7%	24.1%	25.6%	24.7%	17.6%	25.9%	24.7%
Safety-net (top quintile DSH)	20.1%	100.0%	39.5%	43.4%	51.9%	42.2%	16.1%
Region: Northeast	15.7%	13.9%	7.7%	10.5%	10.9%	4.9%	9.9%
Region: South	39.4%	44.0%	65.5%	61.7%	31.0%	69.9%	50.7%
Region: Midwest	23.7%	11.9%	15.2%	16.9%	6.2%	15.5%	25.5%
Region: West	18.8%	29.0%	9.3%	7.4%	49.7%	7.0%	12.2%
Average Case Mix Index	1.54	1.52	1.36	1.52	1.59	1.38	1.32
DSH=disproportionate share index; MSA=metropolitan statistical area; ZCTA=ZIP code tabulation area							

### III. Social Risk and Performance on the Medicare Spending per Beneficiary Efficiency Measure

The Medicare Spending per Beneficiary (MSPB) measure assesses a hospital's average spending per Medicare beneficiary for a care episode around an inpatient stay, relative to the national average. An episode includes three days prior to the index hospitalization up to 30 days post-discharge, and costs are calculated using claims for Medicare Part A and B services. Costs are price-standardized to remove

geographical variations, so that the measure reflects differences in utilization. The measure is reported as a ratio of the hospital's MSPB amount divided by the national median spending. The hospital MSPB amount is calculated by taking the hospital's average spending amount, divided by the average expected spending amount, and then multiplied by the average spending for all episodes across all hospitals. Predicted spending amounts are calculated separately for each of 25 major diagnostic conditions (MDCs) and then combined to calculate a hospital's overall MSPB ratio. The measure is adjusted for age, sex, severity of illness (using Medical Severity Diagnosis Related Groups, or MS-DRGs), and comorbidities based on a 90-day look-back for 70 hierarchical condition categories (HCCs) (i.e. comorbidities that were coded in claims data during the 90 days prior to the beginning of the episode), and also contains interaction terms for disability and end-stage renal disease (ESRD) status.

The MSPB measure was first introduced into the HVBP program for the FY 2015 program year and was the sole resource use measure in the HVBP program's Efficiency domain during the program years analyzed for this Report. As with other measures in the HVBP program, scores for this measure are based on the higher of a hospital's achievement or improvement scores for the measure. For FY 2015 HVBP program payments, hospitals' performance in 2013 and their improvement between 2011 and 2013 were used to score hospitals on the MSPB measure.

#### **A. Individual Beneficiary Social Risk and MSPB Ratios**

This analysis first aimed to examine the relationship between individual beneficiaries' social risk and MSPB spending ratios, modeled after the methodology for hospital-level MSPB spending ratios.<sup>ix</sup> It was also important to determine the degree to which any higher spending seen in beneficiaries with social risk factors might simply reflect higher medical risk or worse functional status, which may drive higher spending for an inpatient episode without being captured by the measure's current risk adjustment. To assess this potential relationship, this analysis included two additional factors: first, disability as the original reason for Medicare entitlement; and second, medical complexity as defined using the highest quintile of HCC risk scores derived from the 90-day look-back of Medicare claims within the measure's risk-adjustment model.

Analyses of the relationship between each social risk factor (as well as medical complexity) and MSPB are shown in Table 7.3. Regression models for each social risk factor were run separately using GEE models to estimate the total effect and random effects models to estimate the within-hospital effect of the beneficiary's social risk. Dually-enrolled beneficiaries were 4% more expensive than non-dually-enrolled beneficiaries, even within the same hospitals. Disabled and medically complex beneficiaries were 1-2% more expensive than non-disabled, non-complex beneficiaries within the same hospital. Rural beneficiaries were also 1% more expensive. Hispanic beneficiaries were 5% less expensive than

<sup>ix</sup> Stay-level MSPB spending ratio= (standardized spending amount)/ (predicted spending amount), where standardized episode payment amount is the episode spending after claim payments in each episode has been standardized for geographic variation and predicted episode payment amount is the expected episode spending determined through risk adjustment, after it has been censored, and outliers have been excluded. Predicted episode payment amount is the expected episode spending determined through risk adjustment, after it has been truncated, and outliers have been excluded. Details are available in the Appendix.

non-Hispanics, and there was no difference in spending for Blacks or beneficiaries living in the poorest neighborhoods.

**Table 7.3. Relationship Between Each Beneficiary Social Risk or Medical Complexity and MSPB Spending Ratios**

Beneficiary Social Risk Factor	MSPB Ratio, by Beneficiary Social Risk		Effect of Social Risk on MSPB Spending Ratio, %	
	Socially at-risk Beneficiaries	Other Beneficiaries	Total Effect <sup>1</sup> for Social Risk	“Within-hospital” Beneficiary Effect of Social Risk <sup>2</sup>
<b>Dually enrolled</b>	1.03	0.98	<b>4%</b>	<b>4%</b>
<b>Low ZCTA Income</b>	1.00	1.00	0%	0%
<b>Black</b>	1.00	1.00	<b>1%</b>	0%
<b>Hispanic</b>	0.98	1.00	<b>2%</b>	<b>-5%</b>
<b>Rural</b>	0.98	1.00	<b>-3%</b>	<b>1%</b>
<b>Originally entitled to Medicare due to disability<sup>3</sup></b>	1.00	1.00	<b>1%</b>	<b>1%</b>
<b>Medically Complex</b>	1.02	0.99	<b>2%</b>	<b>2%</b>
<p>Bolded terms are significant at p&lt;0.01. Each model was run separately. ZCTA=ZIP Code Tabulation Area; MSPB=Medicare Spending Per Beneficiary</p> <p>1. Total effect on spending ratio due to beneficiary social risk and hospital where care is received, from generalized estimating equation (GEE) regression models.</p> <p>2. “Within-hospital effect” on spending ratios due to beneficiary social risk within the same hospital, estimated using random effects regression models</p> <p>3. The MSPB measure includes disability and 5 disability interaction terms in the clinical risk-adjustment. To estimate the effect of disability on spending, these results were produced using the risk adjustment model without disability, and the interaction terms.</p>				

When dual enrollment and medical complexity were entered into the same beneficiary-level model, the effect associated with dual enrollment remained unchanged at 4% higher spending, while the effect associated with medical complexity dropped from 2% to 1% (see Supplement for additional analyses). These findings suggest that dual enrollment explains some of the relationship between medical complexity and spending, but that the effect of dual enrollment is independent of medical complexity as captured in current HCCs.

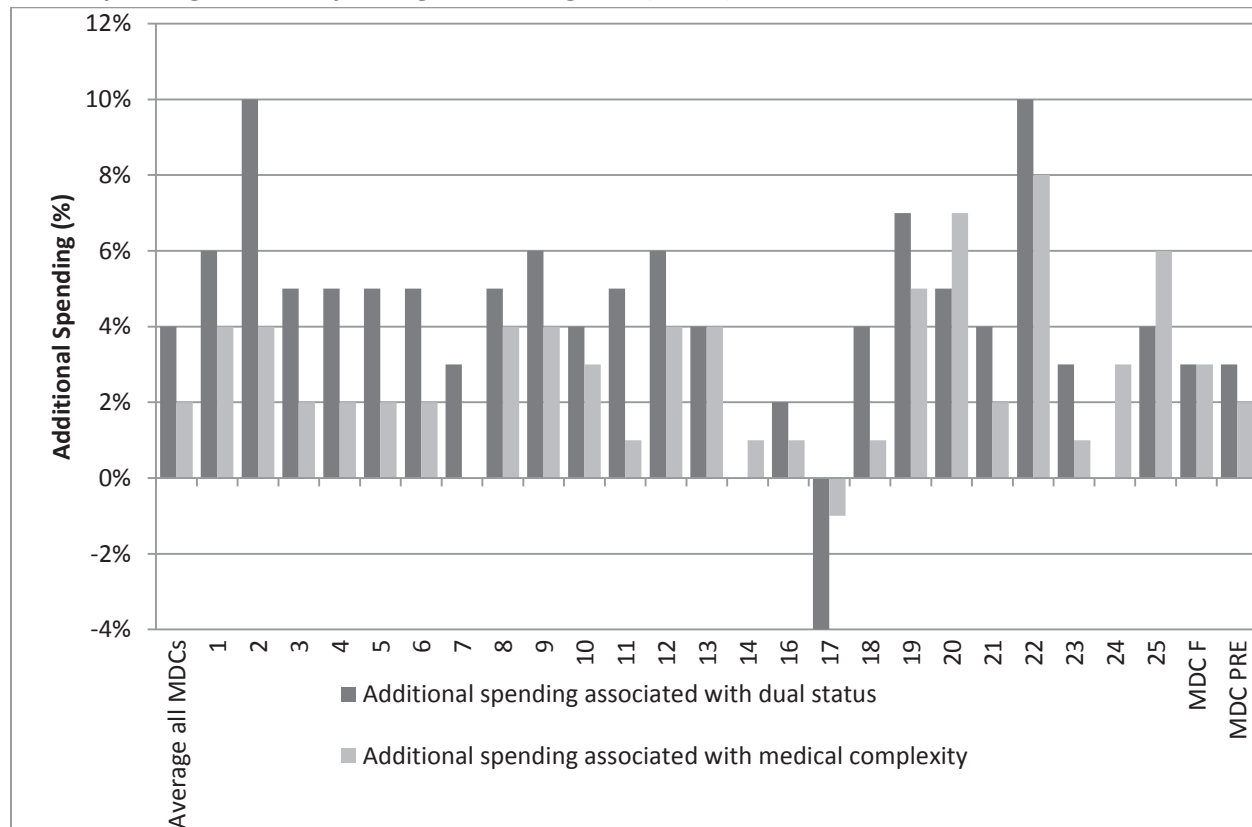
However, preliminary analyses using a claims-based frailty index to identify beneficiaries who may suffer from frailty demonstrate that frailty is in part responsible for the observed higher spending in dually-enrolled beneficiaries. This finding suggests that some of the effect currently captured by the indicator of dual enrollment may be picking up differences in medical risk – including frailty – which are beyond providers’ control and should be adjusted for (see the Appendix to this chapter for preliminary findings on frailty and MSPB spending ratios). This will be further investigated in Study B.

### B. Consistency of Spending Differences by Social and Medical Risk Across Conditions

As mentioned earlier, predicted episode spending is calculated separately for 25 major diagnostic conditions (MDCs). The 4% higher spending for dually-enrolled beneficiaries and 2% higher spending for medically complex beneficiaries shown in Table 7.3 above represents an average across all MDCs; therefore, an important question was whether this was driven by a consistent relationship across many MDCs, or by one or two MDCs with particularly high differences in spending for dually-enrolled or medically complex beneficiaries.

When examined separately across each of the MDCs, a consistently higher episode spending for dually-enrolled and medically complex beneficiaries was seen; the highest effects associated with dual enrollment were for burns (MDC 22, 10% higher spending) and mental health conditions (MDC 19, 7% higher spending). Conditions where no positive or negative effect with dual enrollment was found include pregnancy (MDC 14) and trauma (MDC 24). Myeloproliferative disorders (MDC 17) was the only condition category where dually-enrolled beneficiaries had lower spending than non-dually-enrolled beneficiaries (-4%,  $p < 0.001$ ). As seen in Figure 7.2, higher spending associated with medical complexity (red lines) tracked closely to the patterns of higher spending associated with dual enrollment status (blue lines), though the impact of dual enrollment status was generally stronger.

**Figure 7.2. Consistency of Relationship Between Dual enrollment status or Medical Complexity and MSPB Spending Across Major Diagnostic Categories (MDCs)**





These findings show that the higher spending seen in dually-enrolled beneficiaries is consistent and driven by higher spending across many conditions, rather than a single or small group of conditions.

### C. Spending by Care Setting

It was next important to determine whether the higher price-standardized spending seen in beneficiaries at high social risk was related to spending across all care settings (pre-hospital services, inpatient, post-acute, and outpatient) or whether it was related to higher spending in a particular setting. Table 7.4 shows standardized spending broken down by site of care, demonstrating that the 4% higher total spending for dually-enrolled beneficiaries was driven primarily by higher spending in the post-acute setting, both in terms of the proportion of individuals using post-acute inpatient and skilled nursing care (about 5% higher post-acute inpatient care and about 3% higher post-acute SNF care, in addition to 6% lower home health care) and in spending per post-acute encounter (about \$1400 in absolute terms). Additional analyses examining differences between predicted and actual spending in each setting are shown in the Appendix to this chapter.

**Table 7.4. Spending by Care Setting**

Setting Type	Proportion of Group That Utilizes Setting			Average Spending in Setting, Among Utilizers Only		
	Dually Enrolled	Not Dually Enrolled	Difference	Dually Enrolled	Not Dually Enrolled	Difference
<b>Pre-Hospital</b>	93%	87%	<b>6%</b>	\$754	\$691	<b>\$64</b>
<b>Hospital Stay</b>	100%	100%	0%	\$9,857	\$10,954	<b>-\$1,097</b>
<b>Post-Acute Total (all components below)</b>	97%	97%	0%	\$9,617	\$8,189	<b>\$1,428</b>
<b>Post-Acute Components:</b>						
<b>Post-Acute Inpatient*</b>	23%	18%	<b>5%</b>	\$13,122	\$13,490	<b>-\$369</b>
<b>Post-Acute SNF</b>	25%	22%	<b>3%</b>	\$14,024	\$12,980	<b>\$1,044</b>
<b>Post-Acute HH</b>	21%	28%	<b>-6%</b>	\$2,807	\$2,911	<b>-\$104</b>
<b>Post-Acute Outpatient</b>	58%	54%	4%	\$1,389	\$1,126	<b>\$262</b>
*: Includes readmissions, inpatient rehabilitation, and long-term care hospital stays Bolded differences are significant at p<0.01 HH=home health; SNF=skilled nursing facility.						

Thus, these analyses suggest that the higher MSPB spending for dually-enrolled beneficiaries is due both to dually-enrolled beneficiaries going to higher-intensity post-acute settings (i.e. skilled nursing home rather than home health care) as well as higher spending in these settings. For example, analyses showed over \$1,000 more was spent on skilled nursing facilities (SNFs) for dually-enrolled beneficiaries than other beneficiaries who used SNF care, which may reflect additional SNF payments for longer stays, or higher daily payments based on beneficiary need (SNFs are paid per-diem, with rates based on beneficiary resource use groups, or RUGs). Dually-enrolled beneficiaries were 5% more likely to use inpatient care in the post-acute period, which likely reflects both higher readmission rates (as presented in Chapter 4) and greater use of inpatient rehabilitation facilities and long-term care hospitals.

#### IV. Hospital Social Risk Makeup and MSPB Ratios

The next analyses aimed to determine whether there was a hospital effect of caring for beneficiaries with social risk factors on MSPB spending ratios. Spending was examined for all individuals in a hospital with a high proportion of beneficiaries with social risk factors, irrespective of the beneficiaries' individual risk. These beneficiary-level analyses showed that beneficiaries who obtain care at high-dual, high-Black, high-Hispanic, and high-complex hospitals all had slightly higher spending, but when individual beneficiaries' social risk was included in the same regression model as hospital social risk (i.e. separately from the clinical risk-adjustment model), the hospital effect for high-dual and rural hospital location was no longer significant (Table 7.5). Thus, the higher spending seen at high-dual hospitals is primarily related to beneficiary social risk factors (i.e. dually enrolled and rural beneficiaries) rather than hospital effects. However, there was no change to the effect of hospital social risk after including other beneficiary social risk factors in the regression model.

**Table 7.5. Relationship Between Hospital Social Risk or Medical Complexity and MSPB Ratios**

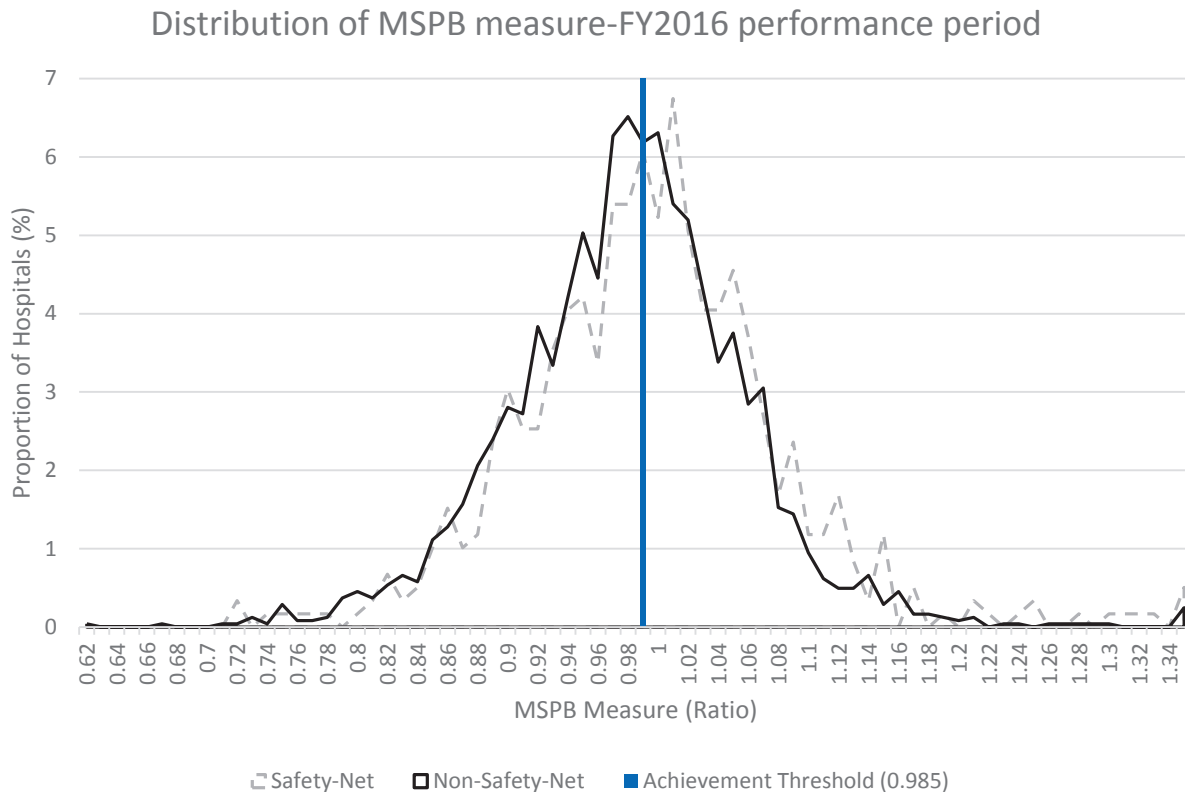
Hospital Social Risk Factors	MSPB Ratio, by Hospital Social Risk		Effect of Social Risk on MSPB Ratio, %	
	Beneficiaries at Hospitals Serving Socially At-Risk Beneficiaries	Beneficiaries at Other Hospitals	Effect of Hospital Social Risk	Effect of Hospital Social Risk, Controlling for Beneficiary Social Risk
<b>High-dual</b>	1.01	1.00	<b>1%</b>	0%
<b>ZCTA low income</b>	0.99	1.00	<b>-1%</b>	<b>-1%</b>
<b>High-Black</b>	1.00	1.00	<b>2%</b>	<b>2%</b>
<b>High-Hispanic</b>	1.02	0.99	<b>3%</b>	<b>4%</b>
<b>Rural</b>	0.96	1.01	<b>-4%</b>	<b>-6%</b>
<b>High-Disabled</b>	0.99	1.00	<b>-1%</b>	<b>-1%</b>
<b>High-Complex</b>	1.03	0.99	<b>5%</b>	<b>5%</b>
Bolded terms are significant at p<0.01. Estimated from random effects models. Each model was run separately. ZCTA=ZIP Code Tabulation Area; MSPB=Medicare Spending Per Beneficiary				

In sum, these analyses demonstrate a significant relationship between dual enrollment status and higher spending on the MSPB, predominantly driven by the higher likelihood of dually-enrolled beneficiaries to use more expensive post-acute care settings, and to have higher charges during their stays in these settings. The higher spending seen for dually-enrolled beneficiaries is largely independent of medical complexity, at least as measured by high HCC scores in a 90-day look-back. These analyses cannot determine whether this additional post-acute spending is appropriate or inappropriate, but given prior findings demonstrating that dually-enrolled beneficiaries are more likely to have poor cognitive and physical function, and to lack caregiver support at home and thus require institutional care,<sup>34,35</sup> this may represent true differences in need rather than over-use of care.

The higher spending observed for dually-enrolled beneficiaries translates into MSPB ratios that are higher on average at hospitals that serve a higher proportion of dually-enrolled beneficiaries, such as safety-net hospitals. The FY 2016 MSPB performance distribution for safety-net hospitals is shifted to the right (higher spending) and has higher reported ratios in the tails of the distribution compared to

other hospitals, as seen in Figure 7.3 (distribution statistics and box plots in the Appendix to this chapter). However, the distributions of performance overlap significantly, as shown below; there are a number of safety-net hospitals that do well on spending despite their patient population.

**Figure 7.3. Distribution of MSPB measure performance by safety-net (high DSH) and other hospitals**



## V. Beneficiaries' and Hospitals' Social Risk and Mortality Measures

The next domain in the HVBP program is the outcomes domain, which includes the condition-specific 30-day mortality measures for beneficiaries with acute myocardial infarction (AMI), heart failure (HF) and pneumonia (PN). These measures are calculated as risk-standardized mortality rates, and are risk-adjusted for age, sex, and clinical co-morbidities using hierarchical regression models with a one year look-back period and a hospital-specific intercept. The risk-adjustment does not include any patient social risk factors. Beneficiaries in hospice or who were discharged against medical advice or transferred from another facility are excluded from the measures. The mortality rates are reported and used as survival rates (i.e. 1- mortality rate) for the purposes of determining HVBP scores.

Medicare claims data for the 2010-2011 baseline period and the 2012-2013 performance period (used for the FY 2015 program year) were linked to patient social factors from Medicare enrollment data were used in the analysis to explore relationships between mortality rates and social risk factors.

Rates and odds of mortality for beneficiaries with AMI, HF and PN were calculated for each of the social risk factors of interest. For dually-enrolled beneficiaries, raw mortality rates were higher for AMI and PN, though lower for HF. However, after risk-adjustment, dual enrollment status was associated with significantly lower odds of mortality for HF and PN (Table 7.6). Beneficiaries with disabilities and those in rural areas had higher odds of mortality, while Black and Hispanic beneficiaries demonstrated markedly lower odds of mortality.

**Table 7.6. Beneficiary Social Risk and Condition-Specific Mortality Rates (AMI, HF, PN)**

Conditions	Observed Mortality Rates		Odds of Mortality		
	Dually Enrolled	Not Dually Enrolled	Raw <sup>1</sup>	Risk-Adjusted <sup>1</sup>	Within-Hospital Random Effect <sup>2</sup>
AMI	15.3%	13.0%	<b>1.21</b>	1.00	1.00
HF	10.9	12.3	<b>0.87</b>	<b>0.86</b>	<b>0.87</b>
PN	11.9	11.6	<b>1.04</b>	<b>0.95</b>	<b>0.95</b>
<b>Black</b>	<b>Black</b>	<b>Non-Black</b>	<b>Raw</b>	<b>Risk-Adjusted</b>	<b>Random Effect</b>
AMI	12.4	13.6%	<b>0.90</b>	<b>0.87</b>	<b>0.86</b>
HF	7.6	12.5	<b>0.58</b>	<b>0.66</b>	<b>0.66</b>
PN	10.9	11.7	<b>0.92</b>	<b>0.87</b>	<b>0.85</b>
<b>Hispanic</b>	<b>Hispanic</b>	<b>Non-Hispanic</b>	<b>Raw</b>	<b>Risk-Adjusted</b>	<b>Random Effect</b>
AMI	8.9	13.7%	<b>0.62</b>	<b>0.63</b>	<b>0.61</b>
HF	6.6	12.2	<b>0.51</b>	<b>0.54</b>	<b>0.55</b>
PN	6.8	11.9%	<b>0.54</b>	<b>0.57</b>	<b>0.56</b>
<b>Rural</b>	<b>Rural</b>	<b>Non-Rural</b>	<b>Raw</b>	<b>Risk-Adjusted</b>	<b>Random Effect</b>
AMI	12.9	13.7	<b>0.93</b>	<b>1.07</b>	<b>1.06</b>
HF	12.4	11.9	<b>1.05</b>	<b>1.16</b>	<b>1.13</b>
PN	12.0	11.5	<b>1.05</b>	<b>1.16</b>	<b>1.14</b>
<b>Low ZCTA Income</b>	<b>Low Income</b>	<b>Non-Low Income</b>	<b>Raw</b>	<b>Risk-Adjusted</b>	<b>Random Effect</b>
AMI	13.77	13.5	1.02	<b>1.07</b>	<b>1.05</b>
HF	10.6	12.2	<b>0.85</b>	<b>0.92</b>	<b>0.92</b>
PN	11.7	11.7	1.01	<b>1.04</b>	1.01
<b>Disability</b>	<b>Disabled</b>	<b>Non-Disabled</b>	<b>Raw</b>	<b>Risk-Adjusted</b>	<b>Random Effect</b>
AMI	12.4	13.7%	<b>0.89</b>	<b>1.23</b>	<b>1.23</b>
HF	9.9	12.3	<b>0.78</b>	<b>1.09</b>	<b>1.09</b>
PN	9.7	12.0	<b>0.78</b>	1.02	1.01

Bolded values are significant at p<0.05.

1. Total effect on mortality associated with beneficiary social risk, estimated from generalized estimating equation (GEE) regression models. Raw rates refer to the CMS mortality measure without clinical risk-adjustment. Risk-adjusted rates are the reported CMS mortality rates with the clinical risk-adjustment applied. Comparing the raw and risk-adjusted rates shows how the clinical risk-adjustment explains some or all of the observed relationship with the risk factor of interest.

2. Random effect or “within-hospital effect” on mortality associated with beneficiary social risk within the same hospital, estimated using random effects regression models.

## V. Hospital Social Risk and Mortality Measures

The next set of analyses examined whether there was a relationship between a hospitals' level of beneficiaries with social risk factors and outcomes. Overall, these analyses demonstrate mixed associations between hospital social risk levels and mortality rates, with rural hospitals performing notably worse than other hospitals for all three conditions and high-disabled hospitals performing worse for two of the three conditions (Table 7.7). Models incorporating both hospital and beneficiary social risk characteristics were largely similar and are shown in the Appendix to this chapter.

**Table 7.7. Hospital Social Risk and Condition-Specific Mortality Rates (AMI, HF, PN)**

Conditions	Observed Mortality Rates		Odds of Mortality	
Top 20% DSH	Top 20% DSH	Bottom 80% DSH	Raw	Risk-Adjusted
AMI	13.8%	13.4%	1.04	1.01
HF	10.8%	12.2%	<b>0.87</b>	<b>0.88</b>
PN	11.9%	11.6%	1.03	0.98
High Black	High Black	Non-High Black	Raw	Risk-Adjusted
AMI	13.5%	13.5%	1.00	1.02
HF	10.6%	12.3%	<b>0.84</b>	<b>0.89</b>
PN	12.2%	11.6%	<b>1.06</b>	<b>1.04</b>
High Hispanic	High Hispanic	Non-High Hispanic	Raw	Risk-Adjusted
AMI	14.0%	13.4%	<b>1.05</b>	0.96
HF	11.0%	12.2%	<b>0.89</b>	<b>0.85</b>
PN	11.5%	11.7%	0.98	<b>0.90</b>
Rural Hospital	Rural Hospital	Non-Rural Hospital	Raw	Risk-Adjusted
AMI	14.8%	13.3%	<b>1.14</b>	<b>1.11</b>
HF	12.7%	11.8%	<b>1.08</b>	<b>1.14</b>
PN	12.1%	11.5%	<b>1.06</b>	<b>1.16</b>
Low ZCTA Income	Low Income	Non-Low Income	Raw	Risk-Adjusted
AMI	14.1%	13.4%	<b>1.07</b>	<b>1.09</b>
HF	11.1%	12.1%	<b>0.91</b>	0.97
PN	12.0%	11.6%	<b>1.04</b>	<b>1.08</b>
High Disabled	High Disabled	Non-High Disabled	Raw	Risk-Adjusted
AMI	13.8%	13.4%	1.03	<b>1.07</b>
HF	11.3%	12.1%	<b>0.93</b>	1.00
PN	12.0%	11.6%	<b>1.04</b>	<b>1.11</b>

Bolded values are significant at  $p < 0.05$ .

Odds ratios estimated from generalized estimating equation (GEE) regression models. Raw rates refer to the CMS mortality measure without clinical risk-adjustment. Risk-adjusted rates are the reported CMS mortality rates with the clinical risk-adjustment applied. Comparing the raw and risk-adjusted rates shows how the clinical risk-adjustment explains some or all of the observed relationship with the risk factor of interest.

## **VI. Social Risk and Performance Under the HVBP**

Tables 7.8 through 7.10 show the impact of the HVBP program on hospitals' measure scores, domain scores, overall scores, and payments for FY 2015 and/or FY 2016 scores; these program-level analyses focus on safety-net hospitals. Table 7.8 shows measure rates (hospitals' performance on each measure) and scores (performance is translated into scores using linear exchange functions, and hospitals are assigned the higher of their achievement or improvement scores). The Patient Experience of Care domain did not report performance rate in the dataset used for this analysis, so only scores are included.

These analyses show that safety-net hospitals, defined as those in the top 20% of DSH Index, performed significantly worse than non-safety-net hospitals on safety measures, process measures, and the efficiency measure, but better or equivalently to non-safety-net hospitals on mortality measures. In the case of the process measures, though safety-net hospitals performed worse, performance was very high overall across measures (93.2% compliance or higher for all measures in safety-net hospitals; 94.0% or higher in non-safety-net hospitals) and absolute differences between hospital groups were small.

When these performance rates were translated into scores, worse performance was seen on safety and process measures for safety-net hospitals. Additionally, safety-net hospitals performed worse than non-safety-net hospitals on all 8 measure scores in the patient experience domain:

7: HVBP

158

Table 7.8: FY2015 Measure Rates and Scores, by Hospital Safety-Net (top 20% DSH) Status

Domain (as of program year FY2015)	Measure	Rate (performance)			Score (better of improvement or achievement, higher is better)		
		Safety-Net (top 20% DSH, N=613)	Non-Safety-Net (N=2438)	Difference	Safety-Net (top 20% DSH)	Non-Safety-Net	Difference
Patient Experience of Care	Nurse Communication	NR	NR	NR	2.2	3.5	-1.3
	Doctor Communication	NR	NR	NR	2.1	2.8	-0.6
	Hospital Staff Responsiveness	NR	NR	NR	1.8	3.1	-1.3
	Pain Management	NR	NR	NR	2.1	2.9	-0.8
	Medicine Communication	NR	NR	NR	2.6	3.5	-0.9
	Hospital Cleanliness & Quietness	NR	NR	NR	2.0	2.8	-0.8
	Discharge Information	NR	NR	NR	3.2	5.2	-2.0
Outcomes (includes patient safety)	Overall Hospital Rating	NR	NR	NR	1.9	3.3	-1.4
	AMI Mortality	14.6%	14.5%	0.0%	5.4	5.7	-0.3
	HF Mortality	11.8%	12.1%	<b>0.3%</b>	2.9	2.4	<b>0.5</b>
	PN Mortality	11.6%	11.7%	0.0%	3.4	3.4	0.0
	PSI-90	0.52	0.50	<b>0.02</b>	6.7	7.0	<b>-0.3</b>
Efficiency	CLABSI	0.60	0.49	<b>0.10</b>	3.5	4.2	<b>-0.7</b>
	Medicare Spending Per Beneficiary (MSPB)	0.99	0.98	<b>0.01</b>	2.0	2.1	-0.1
	Bolded values are significant at p<0.05. HVBP scores reported by CMS. AMI=acute myocardial infarction; CLABSI=central line-associated bloodstream infection; DSH=disproportionate share hospital; HF=heart failure; NR=not reported (only scores, not measure rates, were publicly available for analysis at the time of this Report's writing); PN=pneumonia; PSI-90 is the patient safety composite from AHRQ.						



7: HVBP

159

Table 7.8 (continued): FY2015 Measure Rates and Scores, by Hospital Safety-Net (top 20% DSH) Status

Domain (as of program year FY2015)	Measure	Rate (performance)			Score (better of improvement or achievement, higher is better)		
		Safety-Net (top 20% DSH, N=613)	Non- Safety- Net (N=2438)	Difference	Safety- Net (top 20% DSH)	Non- Safety- Net	Difference
Processes of Care	Fibrinolytic Therapy Within 30 Minutes of Hospital Arrival	81.8%	-	-	1.0	-	-
	Primary PCI Within 90 Minutes of Hospital Arrival	94.0%	96.0%	-2.0%	5.1	5.9	-0.7
	Discharge Instructions	93.2%	94.0%	-0.8%	5.5	5.5	0.0
	Blood Cultures Performed in the Emergency Department Prior to Initial Antibiotic Received	96.9%	97.9%	-1.0%	4.5	5.1	-0.6
	Initial Antibiotic Selection for CAP in Immunocompetent Patient	95.2%	95.8%	-0.6%	4.5	4.6	-0.1
	Prophylactic Antibiotic Received Within One Hour Prior to Surgical Incision	97.8%	98.6%	-0.8%	5.4	5.7	-0.3
	Prophylactic Antibiotic Selection for Surgical Patients	98.2%	98.8%	-0.6%	5.4	6.0	-0.6
	Prophylactic Antibiotics Discontinued Within 24 Hours After Surgery End Time	96.9%	97.7%	-0.8%	5.0	5.2	-0.2
	Cardiac Surgery Patients with Controlled 6AM Postoperative Serum Glucose	96.3%	96.9%	-0.6%	4.9	5.3	-0.4
	Postoperative Urinary Catheter Removal on Post-Operative Day 1 or 2	95.6%	97.1%	-1.5%	6.4	6.8	-0.4
	Surgery Patients on a Beta Blocker Prior to Arrival That Received a Beta Blocker in Perioperative Period	95.3%	97.4%	-2.1%	5.0	5.8	-0.8
	Surgery Patients Who Received Appropriate Venous Thromboembolism Prophylaxis Within 24 Hours Prior to Surgery to 24 Hours After Surgery	96.5%	97.8%	-1.3%	5.4	5.8	-0.4
	Bolded values are significant at p<0.05. HVBP scores reported by CMS. DSH=disproportionate share hospital; PCI=percutaneous coronary intervention.						

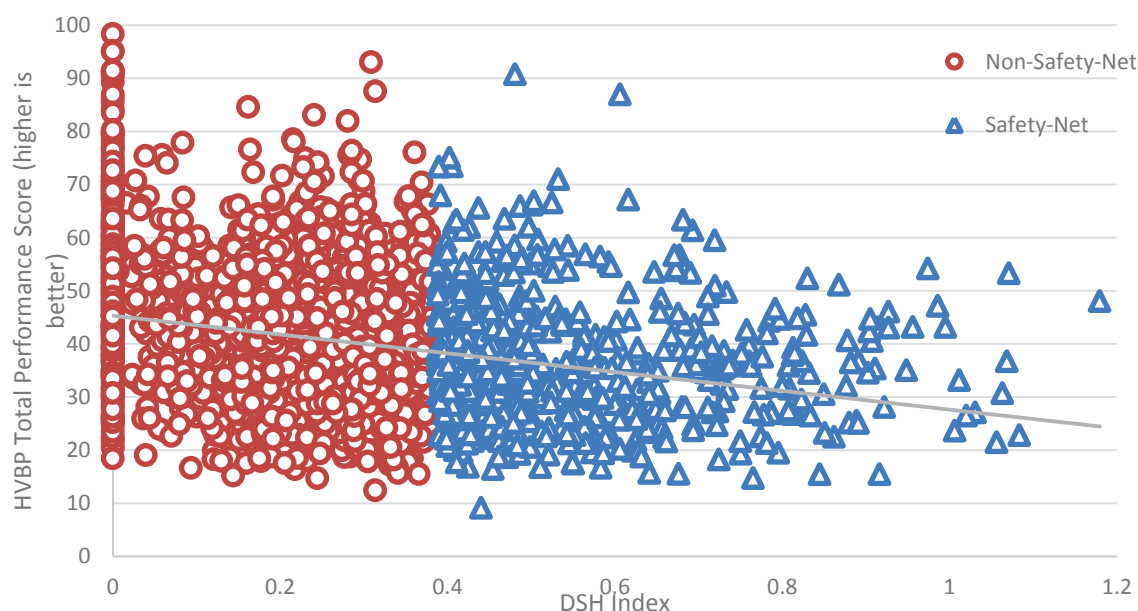
FY 2016 domain weights reflect the greater weighting of efficiency (from 20% to 25%) and outcomes measures including patient safety (from 30% to 40%). This greater emphasis on efficiency and outcomes measures in the program will carry over to future program years from FY 2017 onwards. Table 7.9 shows performance by hospital safety-net status (top 20% DSH) for each domain, demonstrating that safety-net hospitals had worse performance than non-safety-net hospitals on patient experience, processes of care, and total score in FY 2015 and for patient experience, processes, efficiency, and total score in FY 2016. For both years, the largest differences were in the patient experience domain.

**Table 7.9. FY15 and FY16 HVBP Domain and Total Performance Scores, by Hospital Safety-Net Status**

Domain	FY15				FY16			
	Weight	Safety-Net	Rest	Diff	Weight	Safety-Net	Rest	Diff
Patient Experience	30%	10.4	14.4	<b>-4.0</b>	25%	7.2	10.7	<b>-3.5</b>
Outcomes	30%	13.6	13.8	-0.2	40%	19.7	20.2	-0.5
Efficiency	20%	4.4	4.6	-0.2	25%	4.8	5.5	<b>-0.7</b>
Process of Care	20%	10.9	11.9	<b>-0.9</b>	10%	5.7	6.3	<b>-0.7</b>
Total Score	100%	37.5	42.6	<b>-5.1</b>	100%	36.6	41.2	<b>-4.6</b>
Bolded values are significant at $p < 0.001$ . HVBP scores reported by CMS.								

The total performance scores by safety-net status are also displayed in Figure 7.4, demonstrating that while there are high-performing and low-performing hospitals among both safety-net (blue triangles) and non-safety-net (red circles) hospitals, the relationship between DSH index and performance persists across the distribution of DSH Index:

**Figure 7.4. Scatterplot of DSH Index vs. FY2016 HVBP Total Performance Score**



When these scores were translated into payment adjustment factors, the difference in average payment adjustment factor between safety-net and other hospitals was small but statistically significant (Table 7.10). Non-safety-net hospitals received a bonus, on average, worth 0.2-0.3% of base DRG payments, while safety-net hospitals on average remained neutral.

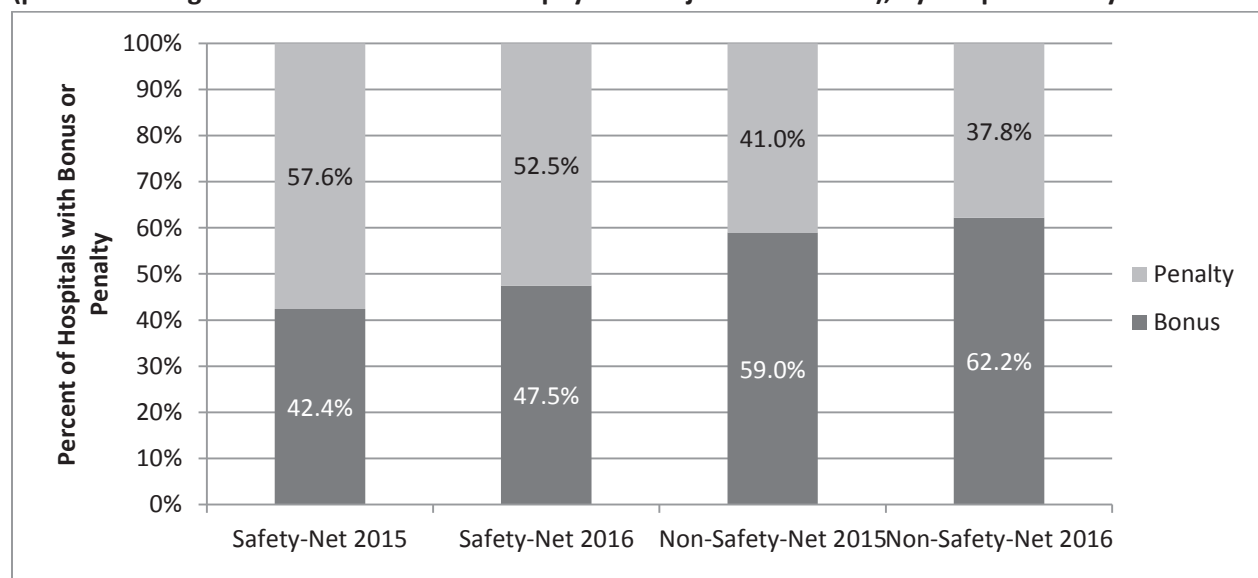
**Table 7.10. FY15 and FY16 HVBP Payment Impacts: Average Value-Based Incentive Payment Adjustment Factor, by Hospital Safety-Net Status (top 20% DSH)**

Program Year	Hospitals (n)	Average Value-Based Incentive Payment Adjustment Factor			
		All	Safety-Net	Rest	Difference
<b>FY 2015</b>	3051	1.001	1.000	1.002	<b>0.002</b>
<b>FY 2016</b>	2987	1.002	1.000	1.003	<b>0.002</b>

Value-based incentive payment adjustment factors greater than one indicate bonuses; adjustment factors less than one indicate penalties. A payment adjustment factor of 1.01 would be equivalent to a 1% bonus; a payment adjustment factor of 1.001 would be equivalent to a 0.1% bonus. A payment adjustment factor of 0.99 would be equivalent to a 1% penalty. Bolded values are significant at  $p < 0.001$ .

Another parameter examined was the proportion of each type of hospital receiving a positive (bonus) versus negative (penalty) value-based incentive payment adjustment compared with other types of hospitals. Here the differences were larger (Figure 7.5). Safety-net hospitals were more likely to be penalized in both years of the HVBP program; in FY 2015 nearly 58% of safety-net hospitals received a negative payment adjustment compared with 41% of other hospitals. Patterns were similar in FY 2016.

**Figure 7.5. FY15 and FY16 HVBP Payment Impacts: Proportion of Hospitals with Bonus or Penalty (positive or negative value-based incentive payment adjustment factor), by Hospital Safety-Net Status**



## VII. Policy Options

### A. Introduction

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 7.11:

**Table 7.11. Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How policymakers weigh these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

The policy simulations in this chapter only address the efficiency domain. The patient experience and processes of care measures are not addressed via simulation because, as elaborated earlier, the patient experience measures are already adjusted for social risk factors, and processes of care are largely measures where accounting for social risk is inappropriate or unnecessary. Improving safety-net hospitals' performance on patient experience and processes of care will require strategies to improve care delivery through technical assistance; these interventions are discussed after the policy simulations.

The patient safety domain is not addressed here because it is covered in depth in the Hospital-Acquired Conditions Reduction chapter, which precedes this one. Because the safety measures are in two programs, safety-net hospitals' poor performance counts against them to a greater degree than poor performance on many other types of measures. Therefore, ongoing evaluation of these measures, and their impact on the safety net, is of particular importance. Further, the points made about the patient safety measures in the HACRP chapter remain germane here: safety-net hospitals may be disadvantaged by safety measures that do not account for medical risk, and therefore the current measures that are not adjusted for risk should be a priority for further evaluation. Finally, in simulations in which examined the impact of removing the safety measures from HVBP was examined, there was a moderate reduction in the difference in the likelihood of receiving a penalty between safety-net and non-safety-net hospitals. However, such an approach is not currently recommended given the high priority placed on patient safety.

Some have argued that social risk should be addressed in HVBP by adjusting the program's "bottom line": one policy option to that end would be to account for social risk at the total performance score

level rather than by domain or measure. For example, some may argue that stratification at the total performance score level could be a viable approach to more fairly determine the HVBP payment adjustment. However, this would explicitly establish a lower standard for safety-net hospitals that is driven primarily by differences in patient experiences and quality of care – two elements that are arguably most directly within providers’ control and accountability. Therefore, accounting for social risk by stratifying overall performance scores was not in keeping with the policy goal of adjusting only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control, and was not modeled here.

Instead, the policy option modeled focuses on direct adjustment within the efficiency domain to address social risk, which could be done for reporting and payment purposes, or for payment purposes alone. This is outlined in Table 7.12:

**Table 7.12. Summary of Policy Options**

Option Title	Specifics of Option	Pros	Cons
<b>1. Status Quo</b>	No changes to the current program	<ul style="list-style-type: none"> <li>• Promotes transparency to facilitate consumer choice</li> </ul>	<ul style="list-style-type: none"> <li>• Does not address issue of social risk</li> </ul>
<b>2. Adjustment</b>	Adjust MSPB measure for dual enrollment	<ul style="list-style-type: none"> <li>• Recognizes that achieving high quality care may require more resources for dually-enrolled beneficiaries</li> <li>• Consistent with other cost measures that adjust for dual enrollment</li> <li>• May protect beneficiaries’ access to care by reducing disincentives to caring for high-risk populations</li> <li>• May protect providers from unfair financial stress</li> </ul>	<ul style="list-style-type: none"> <li>• May discourage reduction in disparities in resource use</li> <li>• Reduces transparency to facilitate consumer choice</li> <li>• May adjust for factors within provider control</li> <li>• Alterations to the current measure may require re-endorsement</li> </ul>

## **B. Policy Option Simulation Results**

### **1. Status Quo**

The first policy option was the status quo. For the measures in the patient experience and processes of care domains, the status quo seems to be working relatively well to account for differences in beneficiaries’ social risk on patient experience and reflect actual differences in quality and thus no changes are recommended in those areas. However, based on analyses of the measure in the efficiency domain, program changes could be considered, and are simulated below.

### **2. Risk Adjustment: Adjust MSPB for Dual Enrollment**

In the Efficiency domain, higher spending on the current MSPB measure was associated with beneficiaries’ dual enrollment status, and was primarily driven by higher post-acute care spending for institutional post-acute care. Such post-acute care could be appropriate and necessary for these

beneficiaries, since prior literature demonstrates that dually-enrolled beneficiaries tend to have poorer functional status and are more likely to lack social support,<sup>30,34,36</sup> factors which are beyond providers' control.

The benefit of adjusting for dual enrollment status is thus to avoid inappropriately penalizing providers for selecting an appropriately intense post-acute location when discharging patients from the hospital. The potential drawback is the risk of over-adjusting if some of this more intense post-acute use is inappropriate. This option also fails to appropriately reward providers who have beneficiaries with poor functional status or low social support that are NOT dually-enrolled; if more precise measures of functional status and social support were available, they might be a more optimal adjuster than dual enrollment status itself. As mentioned above, further work in this area will continue in Study B.

There is precedent for adjusting resource use measures for dual enrollment status; the spending measures used in the Physician Value-based payment modifier Program, for example, adjust for dual enrollment status, and the Medicare Advantage program also includes dual enrollment status in its risk adjustment payment methodology. Adjusting MSPB for dual enrollment status would be essentially budget-neutral since it would not change the part of the program's calculation that ensures budget neutrality. This policy option might require re-specification of the measure and re-endorsement by NQF if substantive changes are made.

This policy option was simulated by adding dual enrollment status directly to the risk-adjustment model for the MSPB measure, and then re-calculating improvement and achievement scores and reassigning a domain score for the Efficiency domain. In FY 2016, there was a difference in performance on Efficiency domain scores by safety-net status, with safety-net hospitals scoring 4.8 compared to non-safety-net hospitals' 5.5 (Table 7.13). However, after adjusting the MSPB measure for dual enrollment status, the score difference was reduced to 0.3 points and was no longer statistically significant. The gap between safety-net and non-safety-net hospitals in the proportion of hospitals penalized and the average payment adjustment factor were both reduced.

**Table 7.13. Policy Option: Adjusting MSPB for Dual enrollment status**

	Current Policy (FY 2016)			Adjusting MSPB for dual enrollment status		
	<i>Safety-Net</i>	<i>Non-Safety-Net</i>	<i>Difference</i>	<i>Safety-Net</i>	<i>Non-Safety-Net</i>	<i>Difference</i>
<b>MSPB ratio</b>	0.998	0.983	<b>0.015</b>	0.990	0.984	0.006
<b>Efficiency domain score (weighted)</b>	4.8	5.5	<b>-0.7</b>	5.1	5.4	-0.3
<b>% Penalized</b>	53.4%	36.5%	<b>17.0%</b>	52.6%	36.8%	<b>15.8%</b>
<b>Average Value-Based Incentive Payment Adjustment Factor</b>	1.000	1.003	<b>-0.003</b>	1.001	1.003	<b>-0.002</b>
Payment adjustment factors greater than one indicate bonuses; adjustment factors less than one indicate penalties. Safety-net hospitals are those in the top 20% of DSH Index. Bolded values are significant at p<0.001.						

Adjustment for dual enrollment status thus equalized measure performance on the MSPB measure for safety-net and non-safety-net hospitals. However, it only reduced the difference in proportion of safety-net hospitals penalized by about 1%, because the efficiency domain only represents one quarter of the total HVBP score.

Many other cost measures are in existence or under development, and though none are currently part of HVBP, a number have been adopted and proposed for the Hospital Inpatient Quality Reporting program (see 81 Fed. Reg. 56761). It will be important to assess if those measures also show higher spending for beneficiaries with social risk factors, and if those measures adjust for dual enrollment status, other measures of social risk and if the clinical risk-adjustment is adequate. Condition-specific cost measures for AMI, HF, and pneumonia are also undergoing analyses as part of the National Quality Forum's trial of including sociodemographic status in measure risk-adjustment.<sup>37</sup> The analyses presented in this chapter did not examine these measures as they are not currently in the HVBP program. However, CMS may wish to examine if there may be higher spending for dually-enrolled beneficiaries in these measures prior to adoption in the HVBP program, and to understand if this may be driven partly by institutional post-acute care spending, which, like the MSPB measure, could be due to beneficiaries' functional status and lack of social support. Furthermore, if these measures are eventually incorporated into the Efficiency domain of the HVBP program, it will be important to see how this may change the program impacts on safety-net hospitals.

### C. Summary of Policy Options

In summary, under the current HVBP program based on FY 2016, safety-net hospitals have on average a 5 point lower Total Performance Score than other hospitals, resulting in a higher likelihood of receiving a penalty rather than a bonus and a slightly higher penalty on average. Adjusting MSPB for dual enrollment status was associated with a smaller gap between safety-net and non-safety-net hospitals in the proportion penalized, and in the average penalty levied (Table 7.14).

**Table 7.14. Summary of Policy Options, differences between safety-net (top 20% DSH) versus non-safety-net hospitals**

Policy Option	Difference in Average TPS	Difference in Percent Penalized	Difference in Average Payment Adjustment Factor	Average payment adjustment amount, SNH, \$	Average payment adjustment amount, non-SNH, \$	Difference in average payment amount, \$
<b>Status Quo (FY 2016)</b>	-5.1	17.0%	-0.0027	-\$45,908	\$11,351	-\$57,259
<b>Adjust MSPB for Dual status*</b>	-4.6	15.8%	-0.0025	-\$42,454	\$10,497	-\$52,951
TPS=total performance score. Policy options are modeled using FY 2016 program weights and measures. *ASPE calculated the MSPB measure from claims-data to incorporate dual enrollment status into the measure risk-adjustment.						



## VIII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying Relationships

- Dually-enrolled beneficiaries had higher spending per care episode, as modeled using the Medicare Spending per Beneficiary parameters; differences were primarily driven by post-acute spending, both in terms of the frequency of use of more expensive settings and the spending within each setting.
- Social risk factors were generally protective for 30-day mortality measures, with the exception of disability and rural status, which were associated with higher mortality at both the beneficiary and hospital level.

#### Program Impacts

- Safety-net hospitals' worse performance on the total HVBP performance score was driven primarily by poor performance on patient experience measures. These hospitals also performed slightly worse than non-safety-net hospitals on process of care measures and efficiency, and on the patient safety components of the outcome domain. However, safety-net hospitals performed equivalently to other hospitals on the mortality components of the outcome domain.
- Safety-net hospitals were more likely to receive penalties and less likely to receive bonuses under HVBP.

#### Policy Simulations

- Adjusting the MSPB efficiency measure for dual enrollment status was associated with slight improvements in performance for safety-net providers.

### B. Strategies and Considerations

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors.

#### **STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key hospital quality and resource use measures.**

The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible.

However, currently, there are areas in which data limitations make calculating and reporting performance for at-risk subgroups difficult. For measures currently collected on only a sample of patients, such as those in the patient experience and process of care domains, a strategy should be developed to capture data that would allow calculation and reporting of performance by important subgroups. This strategy would allow the Department and hospitals, as well as consumers, to better understand who performs well for dually-enrolled beneficiaries and where there are particular areas for targeted improvement. This is consistent with the policy goal of encouraging reductions in disparities in quality and outcomes, and also promotes transparency to facilitate consumer choice.

Alternate sampling methods may be necessary for stratified reporting for measures in which sample size is currently too small. Such methods could include stratified samples rolled over multiple measurement periods, or allowing survey vendors to collect additional demographic data for the HCAHPS.

When adequate data are available, key patient safety and infection measures stratified by social risk should be developed and considered for hospital preview reports and/or public reporting in places such as Hospital Compare, so that hospitals, health systems, policymakers, and consumers can see and address important disparities in care. CMS' Office of Minority Health has started to develop and pilot approaches to reporting health plan quality data by race and ethnicity and other patient subgroups through its website (see <https://www.cms.gov/About-CMS/Agency-Information/OMH/OMH-DPAG-StatisticsAndData.html>).

While not all measures may lend themselves to reporting by patient social risk subgroups, a key subset of measures should be pursued for subgroup reporting at the hospital level.

**CONSIDERATION 2: Consider developing and introducing a health equity measure or domain into the HVBP program to measure disparities and incent a focus on reducing them.**

Financial incentives help providers prioritize areas for particular focus, and specific measures targeting equity within existing value-based purchasing programs can therefore send a powerful signal. This may be achieved by adding a health equity measure or domain to existing programs.

A new Health Equity measure or domain should be added to the HVBP program when feasible. The report on best practices for socially at risk beneficiaries from the National Academies of Medicine recognized the prioritization of equity as a key strategy for health care organizations to deliver high-quality care to beneficiaries with social risk factors.<sup>39</sup> To highlight the importance of health equity and to focus hospitals' attention on reducing disparities in care for patients, creating a health equity domain is recommended. This would enhance incentives to deliver high-value care to all patients, including beneficiaries with social risk factors. This approach would be particularly consistent with the policy criterion of encouraging reductions in disparities. Such a domain could allow hospitals to gain extra

points for closing the gap in performance on quality, patient experience, and outcomes. If socially at-risk patients require more resources to achieve the same outcomes, the bonus points achieved could help recognize and reward the additional efforts hospitals undertake to achieve those outcomes.

A health equity domain in HVBP could include performance on measures of disparity reduction (within a hospital, or on achievement compared to a national benchmark for the subgroup of interest), or include structural measures to give credit to hospitals who have undertaken quality improvement efforts targeting socially at-risk patients, including systems practices that address the needs of socially at-risk patients. One case study is HealthPartners, a large health system in the Midwest which has implemented a Disparities Scorecard and offers payment incentives for meeting disparities reduction goals.<sup>39</sup> Others have noted collecting community-level data on social risk factors can help hospitals and other providers better understand their at-risk population under a population health approach and help to redesign care and establish community partners to address their population's social needs. This may motivate providers to address social factors that drive health outcomes.<sup>40,41</sup>

A health equity domain could be scored either as part of the program's current Total Performance Score (TPS), or be applied as an additional adjustment to the TPS to incentivize reductions in disparities. A payment adjustment for health equity would clearly identify hospitals that perform well on this measure and increase transparency to consumers.

While specific approaches or measures were not evaluated, this concept was put out for public comment by CMS in the context of the Hospital Inpatient Quality Reporting Program for future years, and has been proposed as one potential measure type in the clinical practice improvement area for the Merit-based Incentive Payment System (MIPS) program. Public input on how to measure disparities and give credit for efforts to reduce disparities, especially from safety-net hospitals and community partners, would help ensure that the HVBP program appropriately rewards equity.

**CONSIDERATION 3: Consider prospectively monitoring for potential unintended consequences. In particular, the cumulative penalties across the three hospital programs for providers that serve beneficiaries with social risk factors should be tracked.**

Prospectively monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change. This is particularly important since the measures, domains and weighting in the HVBP program have changed each year since the program started.

While the HVBP program offers penalties and incentives based on performance, the bonuses from the HVBP program alone cannot offset the penalties from the three hospital programs overall (HRRP, HVBP, and HACRP). For safety-net hospitals in particular, although penalties from a single program may be small, the additive penalties across all three programs may be significantly larger. This may be

particularly important given the presence of safety measures in both the HACRP and HVBP. Safety-net hospitals and other hospitals who disproportionately serve beneficiaries with social risk factors may be more likely to be negatively impacted across the three hospital programs. Thus, monitoring should include both unintended consequences of the HVBP as well as cumulative financial impact across the hospital programs, with a focus on hospitals who disproportionately serve socially at-risk beneficiaries.

## **STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

### **CONSIDERATION 1: The measures used in the current HVBP program should continue to be examined to determine if adjustment for social risk factors is appropriate.**

The measures in the HVBP program are a diverse set – they include process measures, which are not adjusted for medical or social risk; outcome measures, which are adjusted for medical but not social risk; safety measures, some of which are adjusted for medical risk and some of which are not, and none of which are adjusted for social risk; patient experience measures, which are adjusted for social risk; and a resource use measure, which is adjusted for medical but not social risk. This program in particular points out the importance of considering each measure independently to determine whether or not adjustment is appropriate, and if so, what kind.

Perhaps the measure that warrants the most discussion and ongoing research in the current HVBP portfolio is the MSPB. There is no general consensus as to whether resource use measures should be adjusted for social risk – in the current Medicare program, while the MSPB measure does not account for social risk in its current form, other resource measures do. For example, the per-capita costs of care measures contained in the Physician VM program (Chapter 10) are adjusted for dual status, as are cost growth calculations in the Medicare Shared Savings Program (Chapter 9).

Adjustment of resource use measures may be appropriate where relationships exist with social risk that may be reflective of higher care needs because higher resource use (measured as costs) may reflect higher need rather than lower quality. For example, dually-enrolled beneficiaries may have greater needs, including social support, functional or cognitive limitations, or higher severity of disease, and require greater resources to achieve the same outcomes as other beneficiaries. Institutional post-acute care settings, which are more costly, may nonetheless be most appropriate for recuperating beneficiaries with unstable housing who cannot safely be discharged home, or for beneficiaries with disabilities who need specialized equipment during their post-acute recovery period. Prior evidence suggests that beneficiaries with social risk factors are at lower risk for over-use of care and at higher risk of unmet medical need, so resource use measures that do not adequately account for these factors may carry a risk of unintended consequences.

On the other hand, some of the higher costs seen in beneficiaries with social risk factors may be related

to lower quality care, such as inappropriate overuse of high-cost treatments. In these cases, risk adjustment might mask disparities. However, prior evidence has shown that overuse is more frequent among socially low-risk populations, and that beneficiaries with social risk factors are actually more likely to not receive certain treatments (such as stents in the setting of a heart attack). Therefore, these beneficiaries may have unmet care needs artificially lowering their costs, and the overuse component may not be a major driver of higher spending in socially at-risk beneficiaries.

Some of the higher costs seen in beneficiaries with social risk factors may also be related to lower quality care as reflected in preventable admissions or readmissions. This is one important limitation of adjustment that should be kept in mind; adjusting away markers of poor quality care would be counter to the goals of this and other Medicare payment programs. Incenting the reduction of such clinical events via quality metrics is therefore an important counterpart when resource use measures are adjusted for social risk.

One potential means for updating the MSPB measure, if consensus were to be reached that adjustment were the preferred approach, would be by updating its clinical risk-adjustment with the updated 2017 HCC risk-adjustment model used for adjusting Medicare Advantage payments. In 2016, the MA program performed analyses of fee-for-service spending and determined that the prior version of the model under-predicted costs for full-benefit dually-enrolled beneficiaries by 8% but over-predicted costs in partial-benefit dually-enrolled beneficiaries. They concluded that the model could be improved by breaking community-dwelling beneficiaries into six mutually exclusive segments to predict costs: under-65 fully dual-enrolled, under-65 partially dual-enrolled, under-65 non dually-enrolled beneficiaries, and these three same dual enrollment categories in the 65 and over population. Currently, the MSPB measure uses a variant of the HCC model that includes disability but not dual enrollment status; the measure could be tested to determine if simply using the updated HCC model improves estimation of costs for dually-enrolled beneficiaries.

This report only examined current measures in the program and did not evaluate all potential cost measures that may be included in the program in the future. Other cost measures considered for inclusion in the HVBP program's Efficiency domain should be similarly evaluated to determine whether clinical risk-adjustment is adequate and whether beneficiaries with social risk factors have higher costs, potentially due to appropriate use of post-acute care. While the choice of post-acute care setting is under the hospital's control, beneficiaries' functional and social needs determine safe and appropriate discharge destinations. Resource use measures should, to the extent possible, reflect appropriateness of care, not just costs.

It is also important to note that this consideration is entirely independent of DSH payments. DSH payments are intended to address the higher costs of providing care to beneficiaries with social risk factors, and are not value-based payments intended to specifically reward hospitals that perform well for this population. DSH payments are an add-on dollar amount for each unit of service rendered, whereas the MSPB compares units rendered at one hospital versus another, irrespective of any price

differences (whether geographic or related to an add-on like DSH or GME payments).

In terms of the other measures examined in this chapter, further research is also needed. The mortality measures were one of the few places in this report in which beneficiaries with social risk factors actually did better than non-at-risk beneficiaries. However, the same considerations still hold: adjusting for social risk factors in the measures themselves could make it more difficult to see and address disparities, or negatively impact transparency for consumers. On the other hand, to the degree differences in mortality are related to factors beyond providers' control, some may favor adjustment.

Issues around whether or not to adjust patient safety measures were discussed at more length in the previous chapter (Chapter 6) focused on the Hospital-Acquired Conditions Reduction Program; please see that chapter for the full discussion of these measures. Safety measures included in HVBP should be studied to determine how they could be best and most equitably used to compare performance between hospitals; ultimately, having patient-level data that allows comparisons to be made that account for differences in medical risk profile, where appropriate, could potentially improve both the accuracy of hospital performance assessment and buy-in from the hospital community.

**CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

The finding that dually-enrolled beneficiaries have higher episode costs on the MSPB measure than non-dually enrolled beneficiaries likely represents a mix of underlying medical and social factors. For example, dual enrollees have previously been shown to be more medically complex, which may impact costs, but also may be more likely to have functional and cognitive limitations and to lack family or community support at home, or have unstable living arrangements which may impact care planning.

Therefore, ongoing study should identify information about beneficiaries' functional status and social support at hospital discharge that may better capture beneficiary needs for post-acute care. These data are not currently broadly available, but may be critical to improving risk-adjustment models. If research is able to identify additional measures of functioning and social support, those could potentially eventually be used in lieu of adjusting for dual enrollment or disability status.

### **STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of

providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives for achievement and/or improvement in quality and outcomes in beneficiaries with social risk factors.**

Achievement and/or improvement in high-risk populations should be rewarded, and this could be done by adding targeted payment adjustments to existing value-based purchasing programs such as HVBP. Such opportunities would also help counteract any disincentives under value-based or alternative payment models to caring for high-risk populations.

Hospitals that demonstrate good outcomes in beneficiaries with social risk factors could receive a higher TPS under the current linear exchange function, or be eligible for an additional incentive (i.e. funded from a separate pool of funds, or using a non-linear exchange function in the HVBP program).

While the specific methods such incentives would need to be developed and modeled, there are examples of how one could be constructed. The current Physician VM program, for example, provides an additional payment adjustment for physician practices that serve a high proportion of medically complex beneficiaries if they meet the high performance threshold—practices with highly complex beneficiaries can thus receive additional financial incentives for good performance funded by the withheld payments in a budget neutral manner. Such an incentive could be mirrored, or perhaps altered to target socially at-risk beneficiaries regardless of their care location rather than just hospitals that serve these beneficiaries, for hospitals that achieve good outcomes among at-risk beneficiaries with social risk factors.

Note that this consideration is independent of DSH payments. DSH payments are intended to address higher costs of providing care to beneficiaries with social risk factors, rather than a value-based purchasing program intended to specifically reward hospitals that perform well for this population.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to hospitals that disproportionately serve beneficiaries with social risk factors.**

Improving care delivery by hospitals serving at-risk populations would serve both to reduce disproportionate penalty burdens on these hospitals, and more importantly, to improve care for the most socially at-risk Medicare beneficiaries.

One of the key findings in this work was that the differences between safety net and non-safety-net hospitals on overall VBP performance was largely driven by differences in patient experience. The Hospital CAHPS patient experience measures already adjust for many patient social risk factors, such as educational level, language, and self-reported health status, as well as other factors such as survey administration mode, so these remaining differences likely reflect poorer patient experiences in safety-net hospitals. This is a critical area to address to promote reductions in disparities and to ensure that all



Medicare beneficiaries have access to patient-centered, high-quality care.

New and existing hospital resources should be employed to help safety-net hospitals improve poor patient experience of care. Such resources could include Quality Improvement Organizations - Quality Improvement Networks (QIOs-QINs). This would support overall goals to improve quality and outcomes, and reduce disparities in care. Providing support for quality through targeted technical assistance builds on and supports the second and third strategies – reporting and understanding where potential disparities exist, and subsequently, rewarding hospitals for addressing those disparities. In concert, these recommended strategies support the need to build the infrastructure to address disparities in care for socially at-risk patients and the providers who serve them.

Prior reports have suggested that there are disparities-reduction interventions that could help improve patient experience including training in cultural competency, using multi-disciplinary teams, engaging patients and families, providing interactive education and targeting multiple leverage points along patients' care pathway.<sup>42,43</sup> However, more research is needed to identify best practices and strategies, including those that may be particular to specific social risk groups.<sup>44</sup> Peer-based hospital collaboratives could identify and share best practices in caring for beneficiaries with social risk factors, engaging in research with other federal and local partners to build the expertise needed to help safety-net hospitals best care for their socially at risk patients.

More broadly, CMS could also work with AHRQ on the Healthcare Quality and Disparities Reports to take the existing national and state-level reports and develop reports at the local hospital service area (HSA) to encourage collaboration between providers to address disparities with the support of local collaboratives and quality improvement organizations.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors who are hospitalized.**

Quality improvement efforts to date have focused on hospital processes, but beneficiary-directed programs could also help to achieve better post-discharge outcomes, such as improved 30-day mortality or more efficient use of post-acute care. Consider demonstration projects aimed at dually-enrolled individuals who may have more care transition needs to improve post-hospital outcomes and health care utilization. This could be modeled on the successes found in Medicare Advantage plans that have focused on integrating benefits and supports across Medicare and Medicaid to support beneficiaries with social risk factors, or CMMI's Accountable Health Communities.<sup>2,31</sup>

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## SECTION 3: Medicare Advantage, the Medicare Shared Savings Program, and the Physician Value-Based Payment Modifier

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Currently, there are three value-based or alternative payment models that primarily (though not exclusively) assess quality, outcomes, and costs in the ambulatory setting: the Medicare Advantage Star Rating program, which started in 2008; the Medicare Shared Savings Program (Medicare Shared Savings Program), which started in 2012; and the Physician Value-Based Payment Modifier (VM) program, which started in 2015.

These programs have a number of similarities. In terms of quality measurement, the programs use similar strategies. They each attempt to measure a broad range of quality in the ambulatory setting by including measures that span clinical conditions. They share many metrics, including process measures like body mass index (BMI) assessment, intermediate outcome measures like blood sugar control in diabetics, and outcome measures like hospital readmissions. The manner in which quality is assessed is slightly different between programs: the MA program uses a combination of cluster analysis, relative distribution techniques, and fixed cut points to assign “stars” to performance on different measures, while the Medicare Shared Savings Program compares ACO quality performance on certain measures to benchmarks derived from FFS data available prior to the performance year, and the VM program judges practices against other practices’ achievement in the current year. The MA program includes an improvement measure, on which contracts earn points by improving on the other program measures; the Medicare Shared Savings Program added such an opportunity for the 2015 performance year, and the Physician VM program currently does not include any reward for improvement.

On the resource use side, the programs are more different. The MA program does not include resource use metrics in its Star Rating program. The Medicare Shared Savings Program assesses each ACO’s spending against a benchmark based on its own costs, thus inherently rewarding improvement in spending rather than rewarding ACOs for achieving specific cost targets. The Physician VM program, on the other hand, assesses practices’ performance on total costs of care for attributed beneficiaries compared to other program participants, therefore rewarding achievement rather than improvement.

Germane to the current exploration of social risk, each program currently takes social risk into account in a different manner. In the MA program, CAHPS measures are adjusted for education level as well as

dual enrollment or low-income subsidy status, and two additional measures (Improving or Maintaining Physical Health and Improving or Maintaining Mental Health) are adjusted for education level and income. While there are no resource use measures per se in the Star Rating program, risk adjustment payments made from CMS to the MA contracts are adjusted for full and partial dual enrollment, to recognize that resource use is higher in these individuals than in non-dually-enrolled beneficiaries. In the Medicare Shared Savings Program, CAHPS measures are similarly adjusted for social risk factors. Additionally, Medicare Shared Savings Program costs and cost growth are calculated separately for dually-enrolled beneficiaries, and the fact that costs are measured against an ACO's own benchmark also controls for differences between ACOs' patient populations in social and medical risk. In the Physician VM program, dual enrollment is included as one element of the Hierarchical Condition Categories (HCC) risk score; this score, as well as the score squared, is included in the risk-adjustment model for total per capita costs of care. Similarities and differences are summarized in Table S3.1; these have implications for the impact of each program on providers that serve beneficiaries with social risk factors, which will be explored in each chapter.

**Table S3.1: Comparison of Quality and Cost Methodology in MA, the Medicare Shared Savings Program, and Physician VM**

	Quality Measures	Quality Benchmarking	Resource Use Measures	Resource Use Benchmarking	Rewards Improvement?	Accounts for Social Risk?
<b>MA Quality Star Rating system</b>	Processes, outcomes, patient experience	Cluster analysis, relative distribution techniques, and fixed cut points on current year performance to assign stars	None	Payment adjusted for medical risk and full or partial dual enrollment	Yes, via an improvement measure	CAHPS measures, physical and mental functioning measures, dual enrollment in payment
<b>Medicare Shared Savings Program</b>	Processes, outcomes, patient experience	Benchmarks for performance measures are based on FFS data from prior years, as available	Aggregate spending compared to growth target	Targets benchmarked against historical spending plus cost growth	Yes, via bonus points rewarding improvement as well as cost benchmarking	CAHPS measures, dual enrollment in cost benchmarking
<b>Physician Value-Based Payment Modifier</b>	Processes, outcomes, patient experience (future)	Z-scoring of current year performance to assign quality scores	Total per capita costs of care, condition-specific per capita costs of care, MSPB	Z-scoring of current year costs to assign cost scores	No	CAHPS measures, dual enrollment included as part of risk score for risk-adjustment of some cost measures



## CHAPTER 8: Medicare Advantage

### In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on the metrics that comprise the Medicare Advantage Quality Star Rating program?*
- *Is there a relationship between contract social risk profile and performance on the metrics that comprise the program?*
- *Are contracts that serve a high proportion of beneficiaries with social risk factors less likely to receive bonuses under this program?*
- *What impact would policy options, including adjustment and stratification, have on contracts' performance and bonuses?*

This chapter presents findings on the relationship between beneficiary social risk and performance under the Medicare Advantage (MA) Quality Star Rating program, and examines policy options for MA.

### Key Findings:

#### Underlying Relationships

- Dually-enrolled or low-income-subsidy, Black, and rural beneficiaries, beneficiaries living in low-income neighborhoods, and beneficiaries with disabilities experienced worse outcomes compared to other beneficiaries on many to most of the quality metrics included in the MA Quality Star Rating program. These differences were small to moderate in size, and largely driven by patient rather than contract factors. Hispanic beneficiaries had better outcomes on most measures.

#### Program Impact

- Contracts with a high proportion of beneficiaries with social risk factors generally did worse on overall quality scores, and were much less likely to receive quality bonus payments. However, a small number of contracts serving predominantly dually-enrolled / low-income subsidy-enrolled beneficiaries performed well on the quality measures overall.

#### Policy simulations

- Adjusting for social risk at the measure level, either directly or using an index, led to small changes in performance scores for contracts overall, though there were small gains in high-dual contracts; changes were small because the differences in performance between dually-enrolled and non-dually-enrolled beneficiaries were small for some measures, and because only the patient-level clinical measures were adjusted, and no adjustments were applied to patient experience measures (because they are already adjusted for social risk) or contract-level measures.
- Upweighting the improvement measure had a limited impact.



- Stratifying contracts by proportion dual led to changes in Star Ratings; using population grouping to stratify within contracts also led to changes in Star Ratings.
- Providing star adjustments for improvement or achievement in beneficiaries with social risk factors, or for equity, led to changes in Star Ratings.

### Strategies and Considerations for MA

SUMMARY OF STRATEGIES AND CONSIDERATIONS	
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors, or for subgroups of plans (e.g., special needs plans) on key quality measures.
CONSIDERATION 2:	Measure developers should develop measures that are meaningful for Medicare beneficiaries with disabilities, where many current measures do not apply.
CONSIDERATION 3:	Consider developing and introducing a new measure or domain on Achieving Health Equity into the MA program to assess and reward health plan efforts to reduce health disparities.
CONSIDERATION 4:	Prospectively monitor the financial impact of the MA program on providers disproportionately serving beneficiaries with social risk factors.
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>	
CONSIDERATION 1:	A temporary adjustment index by contracts' dual and disability makeup should be used in the short term, as outlined in the 2017 Rate Announcement and Call Letter. The measures used in the current MA program should continue to be examined to determine if adjustment for social risk factors is appropriate.
CONSIDERATION 2:	Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1:	Consider providing targeted star adjustments to reward contracts that achieve high quality or improve significantly for dually-enrolled beneficiaries.
CONSIDERATION 2:	Consider using existing or new quality improvement programs to provide targeted technical assistance to contracts serving a high proportion of beneficiaries who are dually-enrolled or who have disabilities.
CONSIDERATION 3:	Consider requiring that contracts serving dually-enrolled beneficiaries coordinate benefits between Medicare and Medicaid. Barriers to integration of services between the two payers as well as barriers to spending flexibility for supplemental benefits for dually-enrolled beneficiaries should be minimized where feasible.
CONSIDERATION 4:	Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.
CONSIDERATION 5:	Consider further research to examine the costs of caring for beneficiaries with social risk factors to determine whether current payments adequately account for differences in care needs.

## **I. Introduction**

### **A. Background**

Medicare Advantage (MA), also known as Medicare Part C, provides Medicare beneficiaries with the option to receive their care through health plans operated by private insurers rather than traditional fee-for-service Medicare. MA represents a large and growing share of the Medicare program, enrolling 30 percent of Medicare beneficiaries and accounting for payments totaling \$156 billion in 2014.

Beneficiaries choosing Medicare Advantage may select from numerous plans available in a geographic area, which may vary not only based on issuer but also on cost-sharing, network, or other parameters. For quality evaluation purposes, plans are evaluated at the contract level, which represent a group of plans from a single issuer. Contracts' quality is judged on a comprehensive set of quality measures representing multiple quality domains: staying healthy, managing chronic conditions, member experience, member complaints and changes in performance, and customer service. For those MA contracts that also provide Part D, or prescription drug benefits, performance is also evaluated on a similar set of Part D quality metrics (see Appendix Table 8.1). Performance across Part C and Part D metrics is combined to produce an overall Star Rating.

The resulting stars, which range from values of 1-5, are used for several purposes. They are publicly reported to facilitate beneficiary choice; they are reported to the health plans to facilitate ongoing improvement; and they are used to provide financial bonuses to high-performing contracts. In particular, MA contracts achieving 4 or more stars are eligible for a Quality Bonus Payment. Beneficiaries can also switch to 5-star contracts at any point in the year – not just during open enrollment; conversely, consistently low-performing plans are ineligible for online enrollment.

There is concern that the Star Rating system may disadvantage contracts that serve a high proportion of beneficiaries who are at higher social risk, such people who are poor or disabled, or racial or ethnic minorities. Some argue that health plans face a more difficult task in meeting high performance thresholds for their dually-enrolled beneficiaries or beneficiaries with disabilities due to issues outside their control, such as a higher likelihood of difficulties with adherence to medication or dietary advice, or a lack of transportation or stable housing, that might impact health and health outcomes.

Further, the beneficiaries that face these challenges are unequally distributed between contracts, and contracts that serve a high proportion of beneficiaries with social risk factors may have difficult decisions to make in terms of how and where to invest resources. Contracts with a high proportion of at-risk beneficiaries might need to spend additional resources to achieve good scores on medication adherence – for example, providing visiting nurses to help with medication reconciliation, or reminder phone calls to encourage adherence – but spending resources on medication adherence may leave

fewer resources for that contract to invest in interpreter services for their call center, which is also a quality measure.

Proponents of changing the Star Rating program therefore argue that adjusting program measures for social risk or accounting for social risk in another manner would make the program a fairer and more accurate representation of the true performance of contracts.

On the other hand, some argue that adjusting or accounting for social risk would accept a lower quality of care for beneficiaries with social risk factors, potentially ingraining existing disparities even more deeply. Proponents of the current system argue that the MA program should hold all contracts to a high quality standard, regardless of the beneficiaries they serve, but recognize that achieving that standard may cost more in socially or medically high-risk individuals. This view holds that there is an important difference between saying that achieving high quality with low income beneficiaries is out of the plans' control and saying that it requires more financial resources to achieve high quality. Plans that do well on quality measures while serving large numbers of low income beneficiaries may indeed spend more, but the fact that they can achieve higher quality means the population characteristics do not preclude plans from achieving high quality.

Some also argue that the Star Rating program is not the appropriate place in which to account for social risk, but agree that this type of risk could be accounted for in payment adjustments if demonstrated to be associated with higher medical or administrative costs. Contracts providing care to beneficiaries with social risk factors argue that current payment adjustments fail to account for the higher administrative costs in high-risk populations. Currently, MA payment amounts for dual and beneficiaries with disabilities are based on beneficiaries' spending on medical care – for example, appointments, hospitalizations, and medications – but do not include any allowance for higher administrative costs or community-based services; there are no available quantitative data by which to judge whether, or by how much, these costs are underestimated.

There were two changes announced in the 2017 Rate Announcement and Call Letter that are particularly important to this chapter. First, a new Categorical Adjustment Index was announced, which is discussed at more length in the policy simulation section of this chapter. This Index will provide an adjustment to the Star Ratings system for contracts that serve a high proportion of dual/LIS beneficiaries and/or beneficiaries with disabilities. Second, the risk adjustment of capitation rates paid to MA plans raises other opportunities and incentives for serving certain populations. In 2015, CMS found that the risk adjustment model was under-predicting the medical costs for full-benefit dual eligible beneficiaries by over 9 percent while over-predicting costs for partial-benefit dual and non-dually-enrolled beneficiaries. CMS recently announced changes to its payment policy that would adjust the amounts paid to Medicare Advantage contracts to more accurately reflect the FFS cost experiences for full-benefit dually enrolled beneficiaries, partial-benefit dually enrolled beneficiaries, and non-dually-enrolled beneficiaries.

**B. Existing Research on Differences Related to Social Risk in the MA Program**

Prior research has demonstrated that dually-enrolled beneficiaries and beneficiaries with disabilities have worse outcomes on many of the quality measures included in the MA program.<sup>1,2</sup> There is also evidence that beneficiaries who are racial and ethnic minorities have worse outcomes for many, though not all, measures.<sup>3-5</sup> For example, Black and Hispanic enrollees are less likely to have adequate blood pressure, cholesterol, and diabetes control.<sup>3</sup> However, minority women are actually more likely than White women to receive breast cancer screening in MA, the opposite pattern from fee-for-service Medicare.<sup>6</sup> Analyses of health plan performance overall (not just MA plans) on measures from the Healthcare Effectiveness Data and Information Set (HEDIS), which make up a significant proportion of the MA measures currently in use, have shown similar patterns – plans serving beneficiaries from low-income areas or high-minority areas are more likely to perform poorly on many quality indicators, though absolute differences are relatively small.<sup>7</sup>

Contracts with a high proportion of dually enrolled beneficiaries or beneficiaries with disabilities have lower overall quality scores and worse star performance, on average, and consequently are much less likely to achieve the 4-star threshold associated with Quality Bonus Payments; these differences in performance thus have significant financial ramifications for contracts.<sup>1,8</sup> Part D measures follow a similar pattern, with lower adherence scores related to the prevalence of social risk factors in enrollees.<sup>9</sup> Star ratings for the plans in which rural individuals enroll at higher rates also have slightly lower Star Ratings, though the differences are smaller than those seen for the aforementioned social risk groups.<sup>10</sup>

**C. Limitations**

One important limitation is that data from performance year 2014 (payment year 2016) was used for this analysis. Though that represents the most up-to-date data available at the time of this Report, past performance does not necessarily predict future performance, and thus the policy simulations should be considered to be only estimates of the actual effect for each. Additionally, these data do not reflect new enrollees into the MA program in 2015 or 2016, and to the degree that new enrollees may differ from prior enrollees, the results may not hold equally for all groups.

In this chapter, due to data availability, disability was identified using the current reason for Medicare entitlement rather than the original reason for Medicare entitlement, as used in other chapters. The proportion of individuals with disabilities in this chapter is thus somewhat lower than in other chapters, and the population is almost entirely comprised of beneficiaries under the age of 65.

Another limitation to the analyses presented here is data availability. Because MA quality data are collected at the contract rather than the plan level, analyses of individual plans – including the special needs plans (SNPs) – are not always feasible. Because data are collected on only a sample of beneficiaries for many measures, sample size is also a limitation in terms of examining subgroups (such as dually-enrolled beneficiaries, beneficiaries with disabilities, or beneficiaries who are racial or ethnic minorities) within contracts, as measure specifications do not require that contracts sample beneficiaries in a way that is representative of these subgroups. Many measures do not apply to the under-65 population, so this group, of which nearly all have a disability and roughly half are dually-enrolled, is at particular risk of under-representation. For some measures, moreover, data are *only*

collected at the contract level, so individual analyses cannot be performed; for these measures no within-contract differences can be calculated for the social risk groups of interest.

#### **D. Framework for the Chapter: Key Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the measures contained in the MA Quality Star Rating program. Next, it examines the performance of contracts serving beneficiaries with social risk factors on these measures, and then the performance of these contracts under the bonus scheme. Following these analytic sections, a series of policy simulations are presented. Finally, strategies and considerations for MA are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

### **A. Beneficiary Characteristics**

Data from performance year 2014 (payment year 2016) were used for these analyses. In total, there were 15,282,565 beneficiaries in the MA program in 2014 included in the analytic sample, constituting roughly 97% of total MA enrollees in 2014. 18.2% were partially or fully dual-enrolled (39.0% and 61.0%, respectively), and an additional 3.6% qualified for the low-income subsidy (LIS) through the application process; 14.6% were beneficiaries with disabilities. Beneficiary characteristics are shown in Table 8.1:

**Table 8.1: Beneficiary Characteristics by Social Risk Category**

	<b>Overall</b>	<b>Dually-enrolled/ LIS</b>	<b>Low-Income ZCTA*</b>	<b>Black</b>	<b>Hispanic</b>	<b>Rural</b>	<b>Disability</b>
<b>Beneficiaries</b>	15,282,565	3,336,402	2,247,113	1,480,569	1,304,237	1,904,159	2,237,932
<b>Female</b>	56.7%	63.2%	57.2%	61.4%	55.2%	54.5%	51.4%
<b>Mean Age</b>	71.1	66.8	69.3	69.4	71.3	70.46	55.2
<b>Dually-enrolled/LIS</b>	21.8%	100%	40.4%	43.7%	47.9%	19.9%	50.1%
<b>Low-Income ZCTA*</b>	15.0%	27.9%	100%	39.1%	26.2%	31.3%	23.9%
<b>Race: White</b>	63.3%	43.1%	44.8%	0%	0%	77.0%	54.4%
<b>Black</b>	9.7%	19.4%	24.5%	100%	0%	6.2%	17.2%
<b>Hispanic</b>	8.5%	18.7%	14.8%	0%	100%	2.1%	10.0%
<b>Other</b>	3.8%	5.8%	1.9%	0%	0%	1.0%	2.5%
<b>Unknown</b>	14.7%	13.0%	13.6%	0%	0%	13.7%	16.0
<b>Rural</b>	12.5%	11.4%	26.1%	8.0%	3.1%	100%	14.8%
<b>Current Disability</b>	14.6%	33.6%	23.2%	25.9%	17.1%	17.3%	100%
* = individual lives in a ZCTA in the bottom quintile of median income. ZCTA=ZIP code tabulation area.							

For the purposes of these analyses, fully dual-enrolled, partially dual-enrolled, and low-income subsidy beneficiaries were considered in a single group. This was based on preliminary analyses showing that performance on the quality measures for partial dually-enrolled beneficiaries was much more similar to

performance for full dually-enrolled beneficiaries than to performance for non-dually-enrolled beneficiaries (Appendix Table 8.2).

## B. Contract Characteristics

After excluding contracts without 2015 Star Ratings (those that were too new to be rated or too small to be rated), the analytic sample was made up of 505 contracts. These contracts fall into three basic categories: health maintenance organizations (HMOs), preferred provider organizations (PPOs), and private fee-for-service (PFFS) arrangements. The majority of contracts were HMOs and PPOs, while PFFS arrangements were relatively rare. More contracts were for-profit than non-profit (Table 8.2), but these patterns differed somewhat by social risk breakdown. Beneficiaries in contracts disproportionately serving beneficiaries with social risk factors were much more likely to be dually-enrolled, low-income, Black, Hispanic, rural, and/or have a disability:

**Table 8.2: Contract Characteristics**

	Overall	High-Dual/LIS	Low-Income ZCTA	High-Black	High-Hispanic	Rural	High-Disabled
<b>Contracts</b>							
<b>N Contracts</b>	505	102	101	102	101	102	102
<b>N Enrollees</b>	15,282,565	619,812	1,549,797	1,793,453	3,783,031	3,534,268	826,702
<b>% HMO</b>	69.3%	88.2%	81.2%	87.3%	92.1%	37.3%	90.2%
<b>% PPO</b>	25.4%	11.8%	14.9%	9.8%	6.9%	46.1%	7.8%
<b>% PFFS</b>	1.6%	0.0%	2.0%	1.0%	0.0%	6.9%	2.0%
<b>% Other</b>	3.8%	0.0%	2.0%	2.0%	1.0%	9.8%	0.0%
<b>% For-Profit</b>	68.5%	63.7%	75.3%	79.4%	70.3%	57.8%	68.6%
<b>% Non-Profit</b>	31.5%	36.3%	24.8%	20.6%	29.7%	42.2%	31.4%
<b>Beneficiaries</b>							
<b>% Dually-enrolled/LIS</b>	35.9%	95.3%	63.9%	56.7%	57.9%	30.5%	80.0%
<b>% Low-ZCTA</b>	17.2%	27.3%	42.8%	32.8%	26.5%	19.7%	30.6%
<b>% Black</b>	13.8%	22.5%	30.4%	42.1%	16.5%	8.2%	26.1%
<b>% Hispanic</b>	10.4%	18.9%	21.4%	11.7%	37.5%	3.6%	16.4%
<b>% Rural</b>	12.8%	12.4%	16.0%	5.7%	4.1%	46.3%	13.9%
<b>% with Disability</b>	20.8%	39.5%	34.5%	32.7%	26.0%	21.2%	47.9%
HMO=health maintenance organization; PFFS=private fee-for-service; PPO=preferred provider organization; ZCTA=ZIP code tabulation area							

There was a significant overlap between these groups, particularly dual and disabled. At the contract level, roughly 70% of the contracts in the highest quintile by proportion of dual enrollees were also in the highest quintile for disabled enrollees, and vice versa.



### III. Beneficiary Social Risk Factors and Performance on MA Quality Metrics

The first research question was whether there was a relationship between social risk and performance on the MA quality metrics. The use of the word “performance” is not meant to imply that the beneficiaries themselves are responsible for the outcome – rather, it is used to indicate whether individuals receive the quality measure at hand. It is used interchangeably with “outcome” to indicate whether or not a beneficiary had, for example, appropriate cancer screening, blood pressure control, or treatment for osteoporosis.

Both total and within-contract differences were examined; total difference reflects the combined impact of patient and contract factors, while within-contract differences attempt to isolate patient factors. Because beneficiaries in the same contract are more likely to see the same providers and have the same benefits, differences in quality measures between beneficiaries with versus without social risk factors within a contract are more likely to represent differences in the difficulty of caring for different patient groups. However, differences within contracts are likely to be only a lower bound on the full impact of social risk. Since caring for disadvantaged populations is likely to require more resources, contracts that do so may have inadequate resources to optimally address all areas of clinical need.

Total and within-contract disparities for 19 of the performance measures currently in the MA program, which represent nearly half of the total score for each contract, were examined. These measures were selected because they were beneficiary-level measures, which allowed the examination of within-contract disparities. For the three measures that already control for either medical or social risk factors (“improving or maintaining physical health,” “improving or maintaining physical health,” and “all-cause readmissions”), these adjustments were included in the calculations, such that the displayed results represent the risk associated with each social risk factor from within the specified model, after also accounting for the other factors included in the models. Though the 10 patient experience measures from the CAHPS surveys are patient-level data, these were only examined at the contract level since they only represent a sample of individuals rather than all individuals in the contract. The four plan operations measures, which include elements like the responsiveness of the call center, are not collected at the patient level and thus were only examined at the contract level.

Overall, performance on many of the measures was very good – for example, 83% of beneficiaries had their blood sugar adequately controlled, and 94% of beneficiaries had appropriate monitoring of kidney function if they were diabetic. Performance was lower for a few of the measures: for example, monitoring physical activity (51% of beneficiaries successfully met the measure) and osteoporosis management in women with a prior fracture (40% of beneficiaries successfully met the measure).

Within-contract disparities are shown in Table 8.3, and total disparities are shown in Appendix Table 8.3. In 16 out of 19 measures examined, performance was worse for dual/LIS beneficiaries within a contract (Table 8.3). Effect sizes ranged from an odds ratio of 0.68 for having blood sugar adequately controlled to 0.93 for monitoring kidney function. (An odds ratio of 0.68 means that dual/LIS beneficiaries have



32% lower odds of having their blood sugar controlled than non-dual/non-LIS beneficiaries. Another way to explain the meaning of an odds ratio of 0.68 is that dual/LIS beneficiaries are less likely to have their blood sugar controlled than non-dual/LIS beneficiaries. The odds ratio of 0.93 for monitoring kidney function means that dual/LIS beneficiaries have 7% lower odds of having their kidneys appropriately monitored than non-dual/-LIS beneficiaries.)

On the other hand, dual/LIS status had no relationship with performance for Monitoring Physical Activity and Adult BMI Assessment, and dual/LIS beneficiaries performed better on the measure concerned with reducing the risk of falling (an odds ratio of greater than one indicates better performance). Similar patterns were seen for low-income beneficiaries as defined by ZCTA income (12/19 measures worse, 2 better, 5 no relationship), rural beneficiaries (15 measures worse, 1 better, 3 no relationship), and beneficiaries with disabilities (14 measures worse, 3 better, 2 no relationship). Mixed performance was seen for Black beneficiaries (9 measures worse, 6 better, 4 no relationship); performance was better for Hispanic beneficiaries (4 measures worse, 12 better, 3 no relationship).

Total disparities (Appendix Table 8.3) and within-contract disparities were similar, suggesting that the majority of the difference in performance between socially at-risk and non-beneficiaries with social risk factors on the measures examined for this analysis were due to patient factors rather than contract performance.

When all social risk factors were entered into a single model, the results were largely unchanged (Appendix Table 8.4), suggesting that the risk factors each have independent effects.

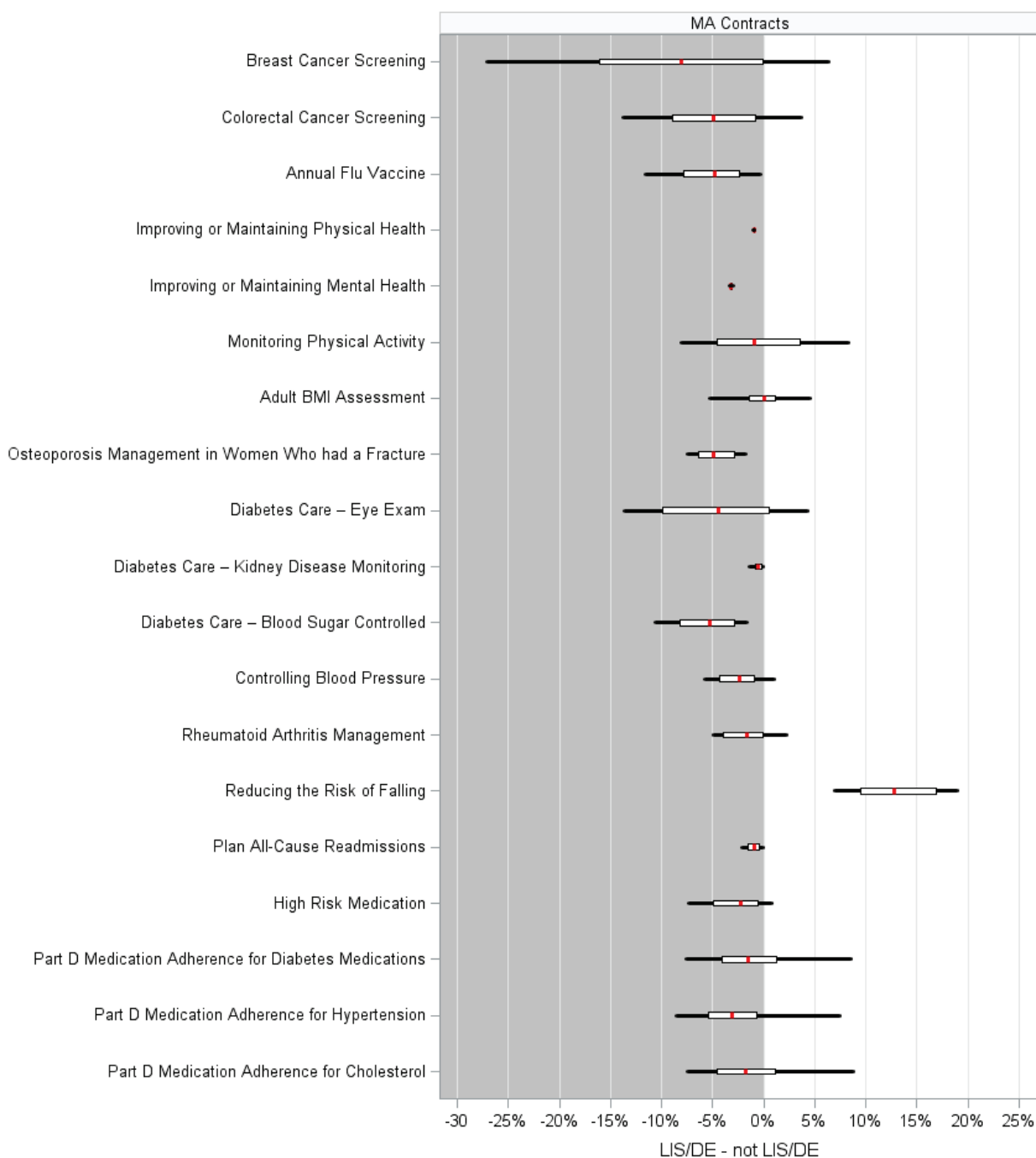
Table 8.3: Social Risk and MA Beneficiary-Level Measure Performance, Odds of Successfully Attaining Measure, Within-Contract Effects, 2014

Domain/Measure	Average Performance	Dually-enrolled /LIS	Low-Income ZCTA	Black	Hispanic	Rural	Disabled
<i>Staying Healthy: Screenings, Tests, Vaccines</i>							
Breast Cancer Screening	76.4%	0.72	0.99	1.32	1.30	0.92	0.85
Colorectal Cancer Screening	71.7%	0.82	0.93	1.11	1.19	0.76	0.85
Annual Flu Vaccine	73.5%	0.78	0.83	0.61	1.09	0.83	0.74
Improving or Maintaining Physical Health*	73.2%	0.92	0.99	1.00	0.98	1.01	0.86
Improving or Maintaining Mental Health*	79.1%	0.81	0.90	0.85	1.01	0.94	0.96
Monitoring Physical Activity	50.8%	0.98	0.95	1.22	1.25	0.79	1.22
Adult BMI Assessment	97.0%	1.01	1.00	0.99	1.41	0.81	0.90
<i>Managing Chronic (Long Term) Conditions</i>							
Osteoporosis Management in Women who had a Fracture	39.9%	0.79	0.97	0.86	1.09	0.91	0.70
Diabetes– Eye Exam	76.7%	0.82	0.93	1.00	1.15	0.82	0.64
Diabetes– Kidney Disease Monitoring	94.1%	0.93	1.00	1.29	1.20	0.80	0.71
Diabetes– Blood Sugar Controlled (reverse-coded)	83.2%	0.68	0.83	0.79	0.83	0.92	0.61
Controlling Blood Pressure	70.4%	0.88	0.89	0.66	1.03	0.95	0.83
Rheumatoid Arthritis Management	78.8%	0.90	0.89	0.95	1.06	0.92	1.06
Reducing the Risk of Falling	59.9%	1.75	1.18	1.49	1.29	0.85	1.32
Plan All-Cause Readmissions (reverse-coded)*	86.9%	0.91	0.99	1.01	1.07	0.97	1.02
<i>Drug Safety and Accuracy of Drug Pricing</i>							
High-Risk Medication (reverse coded)	93.7%	0.73	1.03	1.31	1.35	0.97	0.57
Medication Adherence for Diabetes Medications	78.0%	0.92	0.84	0.62	0.85	1.03	0.73
Medication Adherence for Hypertension	80.3%	0.83	0.83	0.63	0.85	0.99	0.69
Medication Adherence for Cholesterol	76.4%	0.88	0.82	0.60	0.72	1.00	0.76
* =measure controls for medical or social risk factors; all measure-specified factors were included in these models, so results represent odds after adjustment. BMI=body mass index. Separate analyses were conducted for each group. Models control for between-contract differences. All bolded comparisons significant at p<0.05.							

These analyses thus show evidence of a significant within-contract impact of a number of social risk factors on performance on individual measures in the Star Ratings. Note, however, that since none of these measures are adjusted for clinical risk (with the exception of improving or maintaining physical health and improving or maintaining mental health, which are already adjusted for age, gender, race and ethnicity, income, education, marital status, Medicaid eligibility, SSI eligibility, homeowner status, chronic conditions, and baseline health status; and readmissions, which is adjusted for age and comorbidities), the analyses do not reveal whether the differences are due to the social risk factor itself or to the fact that beneficiaries with social risk factors are also at high medical risk and vice versa.

Analyses were next conducted to determine whether the relationship between social risk and quality measure performance was similar across contracts. If so, it suggests more strongly that social risk has a persistent underlying relationship with the outcomes of interest. If not, it suggests that some contracts have been able to reduce or eliminate this disparity. Logistic regression models were run to calculate the difference between the odds of meeting the quality measure for dual/LIS versus non-dual/LIS individuals within each contract.

Figure 8.1 shows the distribution of the effect of dual/LIS status across contracts. The red dot represents the median difference in performance for dual/LIS versus non-dual/LIS; 90% of contracts have a difference in the outcome contained in the White bar. So, for example, for breast cancer screening, the median difference between dual/LIS and non-dual/LIS beneficiaries was about 8% (the red dot in the middle of the top bar). 90% of contracts had a difference in rates between dual/LIS and non-dual/LIS women that is between roughly -2 and -17% (the White bar), and nearly all contracts had worse performance for dual/LIS women (the entire bar, including the Black lines extending beyond the White bar). For “diabetes care – blood sugar controlled,” the effect was even more consistent, with 90% of contracts demonstrating a -3 to -8% difference in this outcome between dual/LIS and non-dual/LIS beneficiaries. On the other hand, the effect for reducing the risk of falling was consistently in favor of dual/LIS beneficiaries, with 90% of contracts between a 9 and 17% higher performance in these beneficiaries.

**Figure 8.1: Variability of Effect of Dually-enrolled/LIS Status, 2014\***

\*=Note that three measures, improving or maintaining physical health, improving or maintaining mental health, and plan all-cause readmissions, control for medical or social risk factors; all measure-specified factors were included in these models, so results represent the odds ratio calculated from within the model (and applied to the measure).

Findings for the other social risk factors examined (ZCTA income, Black, Hispanic, rural, and disabled) were similar (Appendix Figure 8.1).

Collectively, the findings presented in this section suggest that there is a small to moderate, relatively consistent, within-contract relationship between social risk and performance for some measures in the MA Star Ratings. These relationships were primarily negative for dual/LIS status, low-income ZCTA, rural residence, and disability, and more mixed (both positive and negative) for race and ethnicity.

#### **IV. Contract Social Risk Makeup and Performance on MA Quality Metrics**

The next set of analyses aimed to determine whether, independent of beneficiary social risk factors, the proportion of beneficiaries with social risk factors in a contract was associated with quality and outcomes for enrolled individuals. The analyses were run at the patient level as described above, but this time the primary predictor was whether a contract was in the top quintile for each of the social risk factors of interest, after controlling for beneficiary social risk. Table 8.4 displays these findings. For example, looking at the first row of the table, average performance on breast cancer screening was 76.4%. In contracts with a high proportion of beneficiaries who have dual/LIS status, the odds of any beneficiary receiving breast cancer screening, even after controlling for whether the beneficiary herself was dual/LIS, was 0.80. This suggests that beneficiaries in high-dual/LIS contracts had 20% lower odds of receiving breast cancer screening than beneficiaries in other contracts. This contract effect may be a signal of lower quality of care, irrespective of beneficiary makeup.

In general, contract social risk had a smaller effect than beneficiary social risk, particularly for high dual/LIS contracts; fewer measures were significantly associated with contract type, and the odds ratios were closer to 1.

Table 8.4: Contract Social Risk and MA Beneficiary-Level Measure Performance, Odds of Successfully Attaining Measure, 2014

Domain/Measure	Average Performance Across All Contracts	High-Dual/LIS	Low-Income ZCTA	High-Black	High-Hispanic	Rural	High-Disabled
<i>Staying Healthy: Screenings, Tests, Vaccines</i>							
Breast Cancer Screening	76.4%	<b>0.80</b>	0.84	0.88	1.49	<b>0.75</b>	<b>0.67</b>
Colorectal Cancer Screening	71.7%	<b>0.58</b>	1.20	<b>0.67</b>	0.90	0.74	<b>0.60</b>
Annual Flu Vaccine	73.5%	1.04	<b>0.79</b>	<b>0.84</b>	<b>0.85</b>	0.98	<b>0.77</b>
Improving or Maintaining Physical Health	73.2%	0.95	0.96	1.02	0.97	1.00	<b>0.94</b>
Improving or Maintaining Mental Health	79.1%	0.94	<b>0.95</b>	<b>0.95</b>	0.95	1.03	0.95
Monitoring Physical Activity	50.8%	1.07	0.94	0.98	<b>1.09</b>	<b>0.92</b>	0.97
Adult BMI Assessment	97.0%	<b>0.37</b>	<b>0.38</b>	<b>0.40</b>	<b>2.29</b>	<b>0.31</b>	<b>0.31</b>
<i>Managing Chronic (Long Term) Conditions</i>							
Osteoporosis Management in Women who had a Fracture	39.9%	<b>0.65</b>	1.07	1.23	1.98	<b>0.57</b>	0.79
Diabetes– Eye Exam	76.7%	0.97	<b>0.62</b>	<b>0.59</b>	<b>1.82</b>	<b>0.68</b>	<b>0.70</b>
Diabetes– Kidney Disease Monitoring	94.1%	<b>0.67</b>	0.73	0.65	<b>2.34</b>	<b>0.57</b>	<b>0.67</b>
Diabetes– Blood Sugar Controlled (reverse-coded)	83.2%	<b>0.63</b>	<b>0.48</b>	0.60	<b>1.97</b>	<b>0.63</b>	<b>0.48</b>
Controlling Blood Pressure	70.4%	0.97	<b>0.73</b>	<b>0.76</b>	<b>0.85</b>	0.92	<b>0.77</b>
Rheumatoid Arthritis Management	78.8%	<b>0.84</b>	<b>0.81</b>	<b>0.79</b>	0.89	1.01	<b>0.72</b>
Reducing the Risk of Falling	59.9%	<b>1.38</b>	1.20	1.11	<b>1.23</b>	<b>0.90</b>	<b>1.47</b>
Plan All-Cause Readmissions (reverse-coded)	86.9%	<b>1.06</b>	<b>0.88</b>	<b>0.88</b>	<b>0.98</b>	<b>0.98</b>	<b>0.92</b>
<i>Drug Safety and Accuracy of Drug Pricing</i>							
High-Risk Medication (reverse coded)	93.7%	0.99	1.15	1.02	<b>1.19</b>	0.86	0.98
Medication Adherence for Diabetes Medications	78.0%	1.01	<b>0.81</b>	<b>0.83</b>	1.03	0.92	<b>0.81</b>
Medication Adherence for Hypertension	80.3%	0.97	<b>0.76</b>	<b>0.80</b>	0.99	0.94	<b>0.75</b>
Medication Adherence for Cholesterol	76.4%	0.99	<b>0.76</b>	<b>0.81</b>	1.03	0.97	<b>0.78</b>
BMI=body mass index. Separate analyses were conducted for each group. Models control for between-contract differences. All bolded comparisons significant at p<0.05.							

The evidence thus suggests a small to moderate impact of a contract's social risk makeup on performance on individual patient-level measures under the quality star measures. Again, because these measures are, for the most part, not risk-adjusted, these analyses do not determine whether any differences are due to other underlying differences in patient population.

Performance on contract-level measures was also examined; here, the effect is the difference in scores between contracts with high versus low levels of the social risk factor in question rather than the odds of meeting a performance measure at the individual level. While examining contract-level measures cannot demonstrate whether differences are driven by within- or between-contract effects (patient factors or contract factors), such analyses are critical to understanding why the contracts of interest do worse. Such information may be important to determining what types of interventions might help these contracts do better - for example, if high-dual/LIS contracts did very poorly in the drug plan customer service domain or if rural contracts performed poorly in beneficiary access, these could be important pieces of information for quality improvement efforts.

Table 8.5 shows performance on contract-level measures by contract social risk levels. The biggest differences in performance were seen for the domain “Managing Chronic (Long Term) Conditions”, where contracts with a high proportion of beneficiaries with social risk factors performed up to 18 points worse on some measures. In the “Member Experience with Health Plan” domain, which is already adjusted for dual/LIS status and educational attainment, most of the high-social-risk contract groups performed worse than average, though the differences here were smaller than seen when examining patient-level metrics:



Table 8.5: Contract Social Risk and MA Contract-Level Measure Performance, Difference in Rates of Achieving Measure, 2014

Domain/Measure	Average Performance	High-Dual/LIS	Low-Income ZCTA	High-Black	High-Hispanic	Rural	High-Disabled
<i>Managing Chronic (Long Term) Conditions</i>							
Special Needs Plan (SNP) Care Management	59.1	-8.7	-13.6	-5.7	-11.2	-9.7	-16.4
Care for Older Adults – Medication Review	85.2	-3.2	-8.1	-7.6	-5.0	-1.4	-5.7
Care for Older Adults – Functional Status Assessment	75.4	-6.3	-16.9	-9.6	-9.5	-4.3	-17.9
Care for Older Adults – Pain Assessment	86.3	-2.6	-8.7	-6.6	-6.5	0.6	-8.3
<i>Member Experience with Health Plan</i>							
Getting Needed Care	83.3	-2.2	-0.3	-1.4	-3.4	2.3	-2.3
Getting Appointments and Care Quickly	75.8	-1.9	-2.6	-2.8	-3.8	1.7	-2.3
Customer Service	87.2	-2.1	-0.2	-1.2	-2.0	1.8	-2.0
Overall Rating of Health Care Quality	85.4	-1.5	-0.8	-1.5	-1.5	0.7	-1.8
Overall Rating of Plan	84.2	0.3	-0.2	-1.5	-0.1	0.8	-0.7
Care Coordination	85.1	-1.6	-1.1	-0.5	-2.9	1.2	-1.8
<i>Member Complaints/Changes in Health Plan Performance</i>							
Complaints about the Health Plan	0.2	-0.0	0.1	0.2	0.1	-0.1	0.1
Members Choosing to Leave the Plan	11.8	-0.5	4.7	6.5	4.5	-3.9	2.0
Beneficiary Access and Performance Problems	83.1	7.7	2.4	1.3	-0.1	2.1	0.1
<i>Health Plan Customer Service</i>							
Plan Makes Timely Decisions about Appeals	94.1	-1.4	-6.0	-4.5	-2.9	-4.2	-3.1
Reviewing Appeals Decisions	89.3	-1.9	-0.3	2.0	-1.4	-3.0	-1.7
Call Center - Foreign Language and TTY Availability	89.9	-5.1	-6.6	-2.5	-4.7	-1.3	-4.3
<i>Drug Plan Customer Service</i>							
Call Center - Foreign Language and TTY Availability	90.0	-4.5	-5.8	-2.4	-5.3	-1.0	-3.9
Appeals Auto-Forward	3.9	2.8	-0.1	-0.9	0.4	1.1	3.7
Appeals Upheld	76.0	-1.7	0.5	-4.0	4.0	0.5	-1.9
<i>Member Complaints/Changes in Drug Plan Performance</i>							
Complaints about the Drug Plan	0.2	-0.0	0.1	0.2	0.1	-0.1	0.1
Members Choosing to Leave the Plan	11.8	-0.5	4.7	6.6	4.6	-4.1	2.0
Beneficiary Access and Performance Problems	83.0	7.9	2.5	1.5	0.1	1.8	0.3
<i>Member Experience with Drug Plan</i>							
Rating of Drug Plan	83.6	0.9	0.4	-0.4	0.7	0.2	-0.2
Getting Needed Prescription Drugs	90.1	-1.2	-0.9	-1.2	-2.0	1.3	-1.6
<i>Drug Safety and Accuracy of Drug Pricing</i>							
Medicare Plan Finder Price Accuracy	98.4	-0.0	0.1	0.2	0.0	-0.1	0.1

These findings suggest that contracts with a high proportion of beneficiaries with social risk factors are less likely to perform well on chronic care management and patient experience measures (which are already adjusted for dual/LIS and education). However, as these are contract-level analyses, no conclusions can be drawn about within- versus between-contract effects.

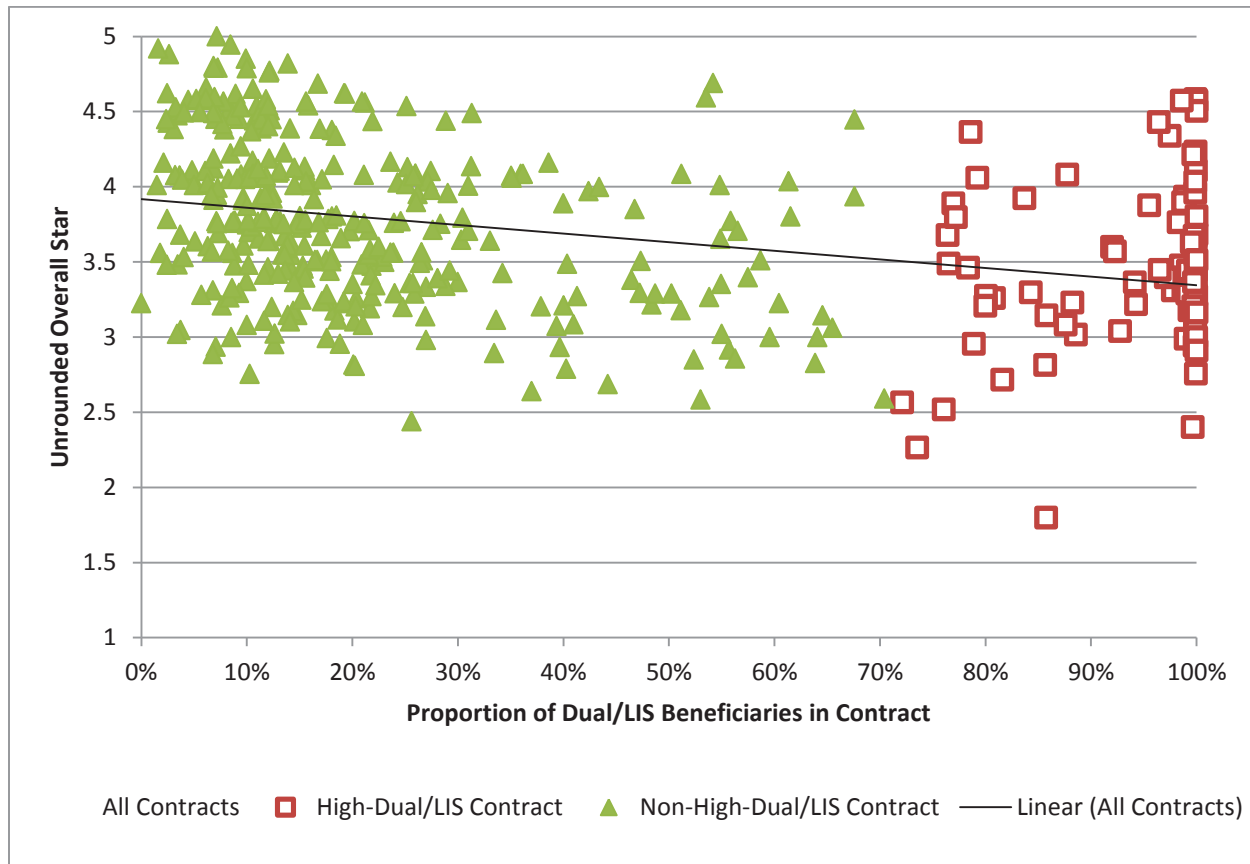
## V. Social Risk and Performance Under the Star Rating Program

As noted above, the quality measures assessed across Part C and Part D performance fall into a number of distinct domains. Performance was worse on multiple domains for MA contracts disproportionately serving beneficiaries with social risk factors, as shown in Table 8.6. For example, the high dual/LIS contracts scored the lowest in the “staying healthy” domain (first row), at 2.81 stars compared to 3.30 stars overall; the only domains on which high dual/LIS contracts numerically outperformed the overall average across contracts were in “managing chronic conditions” (3.35 versus 3.33) and “member complaints and changes in health plan performance” (4.27 vs. 4.03) and “member complaints and changes in drug plan performance,” (4.32 versus 4.11), which include the improvement measures:

**Table 8.6: Contract Social Risk and Domain Performance**

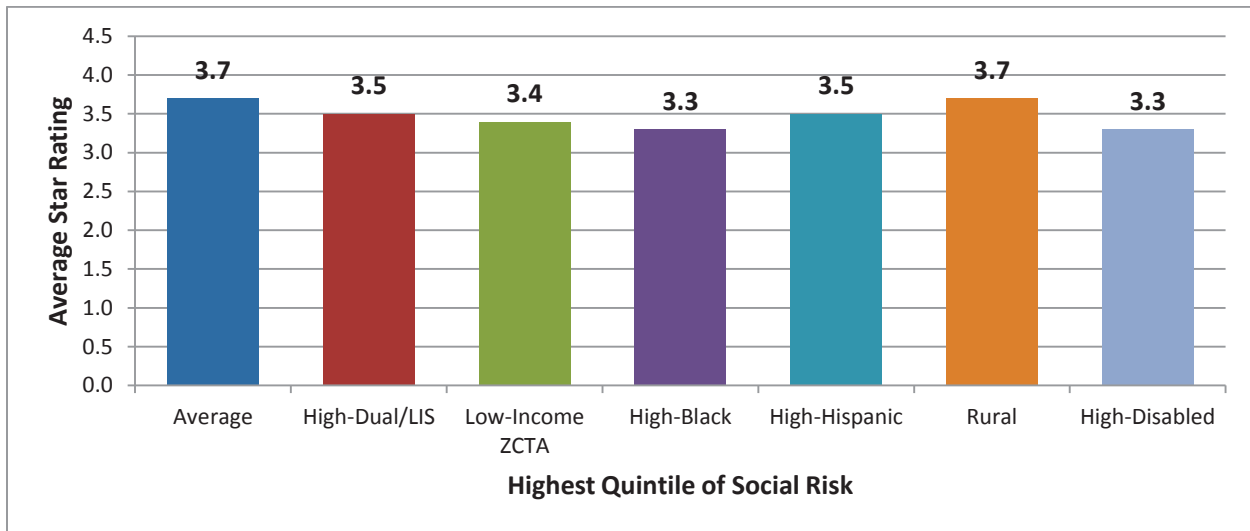
Domain	Average (SD)	High-Dual/LIS	Low-Income ZCTA	High-Black	High-Hispanic	Rural	High-Disabled
<b>Staying Healthy: Screenings, Tests, Vaccines</b>	3.30 (0.70)	2.81 (0.66)	2.88 (0.70)	3.00 (0.75)	3.21 (0.61)	3.10 (0.69)	2.79 (0.59)
<b>Managing Chronic (Long-Term) Conditions</b>	3.33 (0.68)	3.35 (0.84)	3.04 (0.75)	3.13 (0.79)	3.28 (0.63)	3.16 (0.59)	3.01 (0.71)
<b>Member Experience with Health Plan</b>	3.42 (0.99)	2.93 (0.90)	3.11 (0.88)	2.93 (0.87)	2.76 (0.89)	3.84 (0.83)	2.81 (0.81)
<b>Member Complaints/Changes in Health Plan Performance</b>	4.03 (0.72)	4.27 (0.71)	3.85 (0.73)	3.73 (0.67)	3.92 (0.77)	4.13 (0.64)	3.96 (0.81)
<b>Health Plan Customer Service</b>	4.14 (0.81)	3.92 (0.89)	3.98 (0.88)	4.15 (0.75)	3.96 (0.90)	3.85 (0.80)	3.82 (0.83)
<b>Drug Plan Customer Service</b>	4.42 (0.87)	4.29 (0.91)	4.36 (0.83)	4.49 (0.82)	4.34 (0.84)	4.36 (0.96)	4.20 (0.92)
<b>Member Complaints/Changes in Drug Plan Performance</b>	4.11 (0.74)	4.32 (0.71)	4.01 (0.78)	3.78 (0.76)	4.02 (0.73)	4.28 (0.60)	4.04 (0.86)
<b>Member Experience with Drug Plan</b>	3.52 (1.05)	3.31 (1.02)	3.51 (0.99)	3.21 (1.04)	3.25 (0.96)	3.88 (0.90)	3.20 (0.96)
<b>Drug Safety and Accuracy of Drug Pricing</b>	3.76 (0.54)	3.53 (0.61)	3.44 (0.56)	3.40 (0.59)	3.57 (0.61)	3.75 (0.48)	3.38 (0.62)
SD=standard deviation							

Performance on the individual measures is rolled up to a total Star Rating (note that the domains are unweighted means and the overall and summary ratings are weighted means). The total Star Rating tends to be lower for contracts with a high proportion of dually-enrolled beneficiaries, as shown in Figure 8.2:

**Figure 8.2: Relationship Between Proportion Dual/LIS and Quality Star Rating**

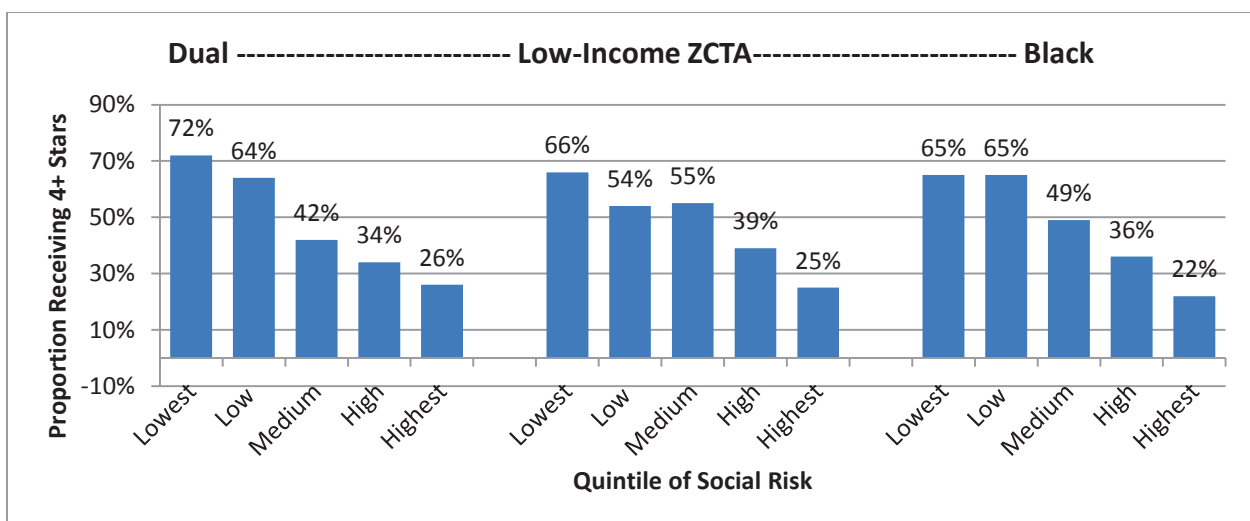
While the lowest performers (those at 2.5 or fewer stars) were largely concentrated among the high-dual/LIS contracts and the highest performers (those at 4.5 or more stars) were largely concentrated among very low-dual/LIS contracts, there were some contracts with a high proportion of dual/LIS beneficiaries that attained high Star Ratings.

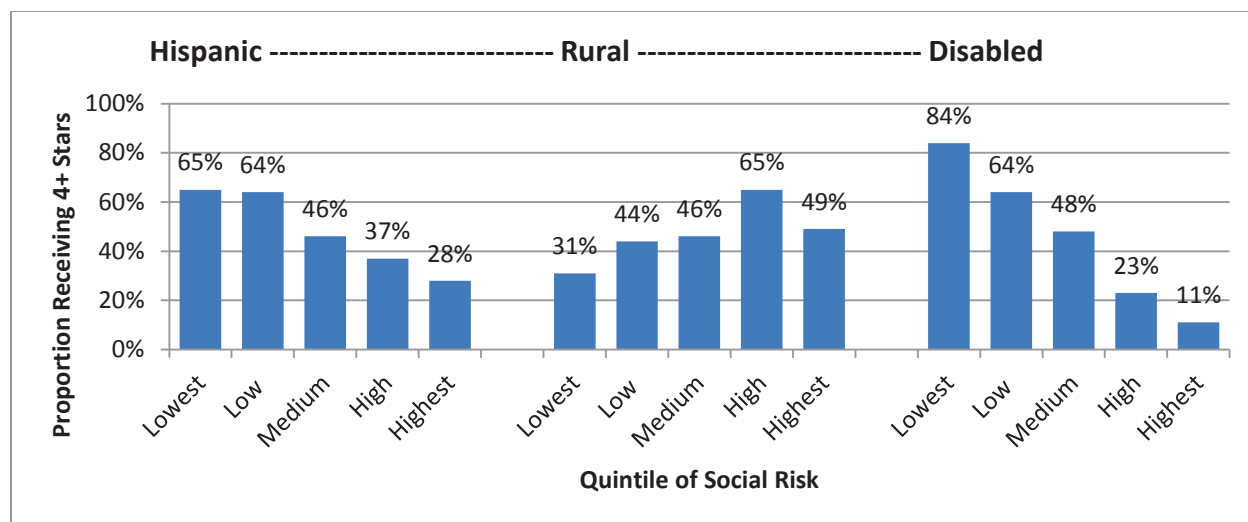
Similar patterns were seen for other measures of social risk, as shown in Figure 8.3 below. Results were similar when weighted for patient population (e.g. average Star Rating in the highest quintile of dual/LIS beneficiaries was 3.49 with weighting versus 3.52 without), suggesting that these results were not driven primarily by disproportionate enrollment of dual/LIS beneficiaries in poor-performing small contracts.

**Figure 8.3: Contract Social Risk and Quality Star Rating**

These relatively modest differences in average score translated into very different likelihoods of achieving a 4-Star rating or higher, which rewards MA contracts with a Quality Bonus Payment and thus has significant financial ramifications. In Figure 8.4, contracts are shown further divided into quintiles of social risk to demonstrate the continuous nature of these relationships, with the “highest” quintile corresponding to the “high-dual” (or “high-Black”, etc.) category on the preceding tables.

Performance was very different by quintile of social risk. For example, while over 70% of contracts with the lowest proportion of dual/LIS individuals achieved 4+ stars, only 26% of those with the highest proportion of dual/LIS individuals did so. Findings were even more striking for disability, with only 11% of contracts in the highest quintile of disabled individuals performing at the 4-star threshold or higher. Contracts in the highest quintile for Black and Hispanic beneficiaries also performed more poorly than contracts with fewer racial and ethnic minorities. Patterns were not as striking for rural residence.

**Figure 8.4: Contract Social Risk and Likelihood of Achieving Four or More Stars**



Overall, these analyses suggest a strong relationship between contract social risk makeup and performance under the MA Star Rating Program. As noted previously, this may have significant financial consequences for contracts.

## VI. Policy Options

### A. Introduction

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 8.7:

**Table 8.7: Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models (less relevant to the MA setting but included for consistency)

How policymakers weight these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

Five main types of policy options are presented and modeled using 2014 data: keeping the status quo, adjusting for social risk, stratifying, rewarding improvement more highly, and providing a bonus for high performance for beneficiaries with social risk factors. Note that “status quo” here reflects the 2014 data used for 2016 Star Ratings, and does not reflect any of the changes finalized in April 2016 that will apply to the 2017 Star Ratings. Also note that none of the policy options considered address the MA payment system – all policy options are concerned with the quality measures and the Quality Star Rating program, not the risk adjustment methodology used for contract payment.

Dually-enrolled/LIS beneficiaries and the contracts that provide their coverage were the major areas of focus, for reasons outlined earlier in this report. Table 8.8 below provides an overview of the policy options, and the text that follows provides additional discussion of each; detailed methodology for each simulation is provided in Appendix Chapter 8.

Table 8.8: Summary of Policy Options

Option Title	Specifics of Option	Pros	Cons
<b>1. Status Quo</b>	Make no changes to the current (2016) program	<ul style="list-style-type: none"> <li>Promotes transparency to facilitate consumer choice</li> </ul>	<ul style="list-style-type: none"> <li>Does not address issue of social risk</li> </ul>
<b>2. Adjust quality measures for social risk</b>	a) Adjust quality measures by adding the social risk factor to a clinical risk adjustment model for each patient-level quality measure (note this does NOT refer to the risk adjustment applied to payments). b) Use a disparity index to adjust performance at the contract level, as laid out in the Rate Announcement and Call Letter for 2017	<ul style="list-style-type: none"> <li>Adjusts only for the difference in performance related directly to the social risk factor</li> <li>May protect providers from unfair financial stress</li> </ul>	<ul style="list-style-type: none"> <li>May discourage reduction in disparities in quality and outcomes</li> <li>Reduces transparency to facilitate consumer choice</li> <li>May adjust for factors within provider control</li> <li>Alterations to the current measures may require re-endorsement (2a only)</li> </ul>
<b>3. Stratify contracts for quality assessment</b>	a) Stratify contracts by their proportion of dual/LIS or beneficiaries with disabilities. b) Stratify beneficiaries within contracts into subgroups ("population grouping")	<ul style="list-style-type: none"> <li>Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations</li> <li>May protect providers from unfair financial stress</li> </ul>	<ul style="list-style-type: none"> <li>May adjust for differences in performance beyond the social risk factor</li> <li>May adjust for factors within provider control</li> <li>Tiers are artificial; might create unusual "cliffs"</li> <li>Might discourage reduction in disparities in quality, and outcomes</li> <li>Might require measure re-specification</li> </ul>
<b>4. Reward Improvement</b>	Upweight the improvement measures in performance evaluation; downweight all other measures such that total available points are unchanged.	<ul style="list-style-type: none"> <li>Promotes reduction in disparities in quality and outcomes by rewarding contracts for improving, even if absolute performance remains low</li> </ul>	<ul style="list-style-type: none"> <li>Does not directly address social risk</li> <li>May penalize high-performing contracts and reward low-performing contracts</li> </ul>
<b>5. Provide incentives for performance for beneficiaries with social risk factors</b>	Provide star bonuses for contracts serving a high proportion of high-risk beneficiaries that achieve high performance or improve significantly.	<ul style="list-style-type: none"> <li>Promotes reduction in disparities in quality and outcomes</li> <li>Promotes transparency to facilitate consumer choice</li> </ul>	<ul style="list-style-type: none"> <li>Without commensurate reductions in other incentives, would not be budget-neutral</li> </ul>

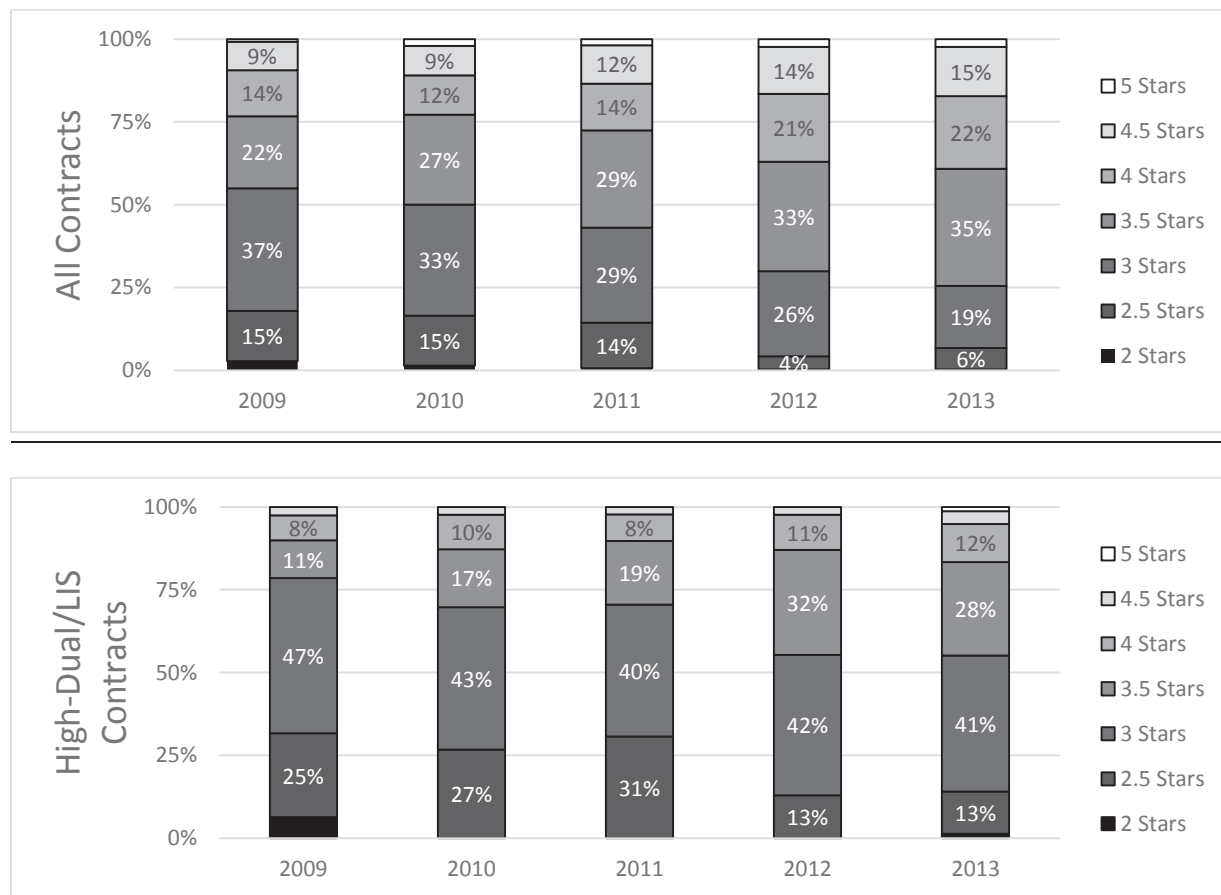


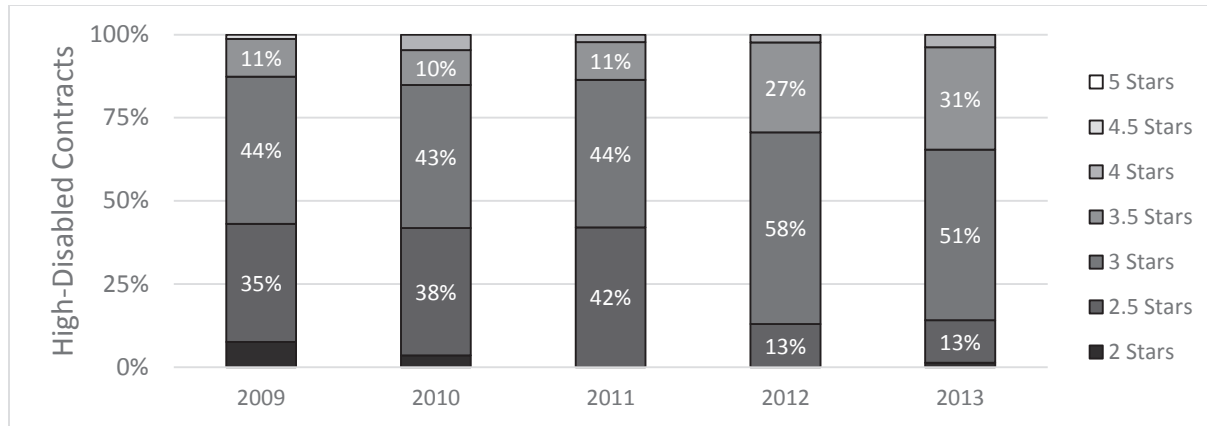
## B. Policy Simulation Results

### 1. Status Quo

The first policy option is to continue the status quo. To see what that might look like in future years, performance was examined over the past five years to determine if there were encouraging patterns in performance, particularly for high-dual and high-disabled contracts. Analyses demonstrated significant improvements, but performance for contracts serving beneficiaries with social risk factors still lagged far behind. For example, though the proportion of contracts at 2-2.5 stars has declined over time in both the high-dual and high-disabled groups, the proportion at 4-5 stars is still very small (Figure 8.5):

**Figure 8.5: Change in Performance Over Time by Social Risk (data shown are measurement year – for example, measurement year 2013 was used in Star Ratings for 2015)**





These findings suggest that high-dual and high-disabled contracts are making significant and meaningful improvements, but still have a long way to go in order to qualify for financial bonuses. Some of these performance differences may reflect differences in the risk profile of contracts' underlying populations that should be taken into account; options for doing so are outlined in the following sections.

## 2. Adjustment for Social Risk

Adjustment for social risk can be accomplished in a number of ways. Two were modeled: adjusting for social risk within the measure itself, and using a disparity index to adjust performance at the contract level.

The first type of adjustment that was modeled was adjusting for dual/LIS status at the measure level for all clinical measures (19 measures in total – see Appendix Table 8.1a). This option is simple; adjustment can be applied at the measure level in the same way as adjustments for age, gender, or comorbidities are made. One could choose which of the measures to adjust based on analytic findings (i.e. those with the largest disparities) or based on measure type (i.e. adjust outcome measures but not process measures). Additionally, this option explicitly addresses social risk, and is responsive to some stakeholders' concerns that without adjustment, the measures are unfair. There is precedent for this approach for both dual and disabled status; CAHPS measures are already adjusted for dual/LIS status and educational attainment, and the current readmission metrics in the post-acute setting include risk-adjustment for disability as well as measures of functional status.

One drawback of this policy option is its opacity. Because the adjustment is built into the measure, the disparity is hidden, which may reduce incentives to reduce disparities (this could potentially be mitigated by using unadjusted performance for reporting and adjusted performance for payment, but it is unclear if the authority currently exists to do so). Adjustment could also risk controlling for factors that are associated with, but not directly the result of, dual enrollment, and could also risk controlling for factors that are under provider control, such as bias or discrimination. Another drawback is that adjustment within the measure would require measure stewards to change specifications; though trials of such adjustments are underway, this is generally a lengthy process.

From an implementation standpoint, this option would require measure re-specification by measure developers, as well as rulemaking. Star rating assignments under this option would need to be re-calibrated to remain budget-neutral, though that takes place on an annual basis anyhow.

The results of adjusting at the measure level are displayed in Table 8.9. Contracts in the top quintile of proportion dual/LIS beneficiaries are classified as “high-dual”; as above, this group has over 80% dual-enrolled beneficiaries on average. This simulation demonstrates that adjusting the clinical measures for dual/LIS status moves a similar number of high-dual/LIS contracts up or down a star level. However, no high dual/LIS contracts moved into the 4+ star groups, while only 3% of the low dual/LIS contracts dropped below this threshold.

**Table 8.9: Adjusting 19 Clinical Measures for Dual/LIS**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.73</b>		<b>3.50</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.01		+0.02		0.00	
<b>Contracts Gaining Stars</b>	42	(10%)	7	(9%)	35	(10%)
<b>Contracts with No Change</b>	341	(82%)	61	(82%)	280	(82%)
<b>Contracts Losing Stars</b>	33	(8%)	6	(8%)	27	(8%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	14	(3%)	0	(0%)	14	(4%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	10	(2%)	1	(1%)	9	(3%)

The next approach was to adjust not at the measure level directly, but rather to adjust the Star Ratings based on a composite index that reflects the observed differences in the measures for dual/LIS or beneficiaries with disabilities within groups of contracts (see Appendix Table 8.5). This approach, which will be implemented as an interim adjustment by CMS for the 2017 Star Ratings that are released in October, 2016 and outlined in the 2017 Rate Announcement and Call Letter, is intended to approximate the impact of adjusting the measures directly, but avoids the problem of moving to non-consensus-based measures by doing so. Otherwise, the pros and cons are similar to those outlined above. Star rating assignments under this option would also need to be re-calibrated to remain budget-neutral, though as noted above this is an annually-updated program so this could take place as part of the annual calculations.

To mirror CMS implementation, the simulated approach adjusts for only 7 measures and adjusts for both dual/LIS status and disabled status. Under this option (Table 8.10), 11 (14%) high dual/LIS contracts gained stars and none lost stars; there was a stronger impact on high-dual/LIS contracts than low-dual/LIS contracts.

**Table 8.10: Adjusting Quality Star Ratings using a Categorical Adjustment Index (Appendix Table 8.5)**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.72</b>		<b>3.48</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.02		+0.06		+0.01	
<b>Contracts Gaining Stars</b>	13	(3%)	11	(14%)	2	(1%)
<b>Contracts with No Change</b>	407	(97%)	66	(86%)	341	(99%)
<b>Contracts Losing Stars</b>	1	(0.2%)	0	(0%)	1	(0.3%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	3	(1%)	2	(3%)	1	(0.3%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	1	(0.2%)	0	(0%)	1	(0.3%)

### 3. Stratification

Stratification aims to compare “like with like” by breaking contracts, plans, or beneficiaries into two or more groups and then performing comparisons only within those groups.

#### Contract-Level Stratification

For contract-level stratification, contracts are judged only against other contracts with similar proportions of dually-enrolled beneficiaries, and stars are awarded based on the distribution of performance within each peer group rather than overall. These comparisons could be done at the measure, domain, or overall star level, though stratifying performance at the overall star level is the simplest – for example, the Star Rating algorithm, which assigns performance to star levels, could be run independently in two groups of contracts, high-dual/LIS and low-dual/LIS. Alternatively, the algorithm could be run once across all contracts, but then Star Ratings in each group could be re-standardized around the overall group mean.

One attraction of this option is that it recognizes that there may be unmeasurable differences in the challenges faced by contracts that serve a high proportion of dual/LIS beneficiaries. Stratification could also provide financial protection to high-dual/LIS contracts, depending on its implementation, and could reduce incentives for contracts to avoid high-risk beneficiaries, improving access to care for these groups.

The main drawback is that it may risk over-adjusting for things that are not directly related to dual/LIS status or things that are under provider control, including bias, discrimination, or the provision of poor-quality care. It also rewards different absolute levels of performance differently in one group versus another. For example, if there are 53 available “points” for a given contract, a score of 46 might translate to 4 stars if that contract has a high proportion of dual/LIS beneficiaries, while that same score might only translate to 3.5 stars if that contract has a low proportion of dual/LIS beneficiaries. This creates issues of fairness as well as of transparency, since a beneficiary seeking to choose a high-quality plan may not know whether a plan’s performance is high quality in an absolute sense, or only a relative

sense, although this drawback could potentially be overcome by providing additional details on the reporting website.

This option would ideally be near budget-neutral since it would reassign both high and low stars across the two groups.

This option was modeled by re-running the entire Star Rating algorithm separately in high-dual/LIS versus low dual/LIS contracts. However, doing so led to significantly different results than anticipated (Table 8.11). Due to the clustering algorithm that the MA program uses to assign stars to measure performance, which looks for natural breakpoints in the data to assign stars rather than setting performance thresholds at percentiles or other benchmarks, breaking the contracts into two groups and then running the clustering algorithm led to, in general, tougher targets being applied to both groups. Therefore, though performance become more equal between the two groups, both had a significantly detrimental effect from this approach – on average, high-dual/LIS contracts lost 0.11 stars, and low-dual (other) contracts lost 0.22 stars. Over a third of contracts lost at least half a star overall, and 10% newly dropped below 4 stars.

**Table 8.11: Adjusting Quality Star Ratings using Contract-Level Stratification**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.72</b>		<b>3.48</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	-0.20		-0.11		-0.22	
<b>Contracts Gaining Stars</b>	5	(1%)	3	(4%)	2	(1%)
<b>Contracts with No Change</b>	264	(63%)	55	(71%)	209	(61%)
<b>Contracts Losing Stars</b>	152	(36%)	19	(25%)	133	(39%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	0	(0%)	0	(0%)	0	(0%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	43	(10%)	2	(3%)	41	(12%)

Therefore, for stratification to be practically operationalized, a different approach would likely need to be taken.

#### Plan-Level Stratification

In theory, stratification could also be carried out at the plan level, for example comparing Dually-enrolled Eligible Special Needs Plans (D-SNPs) with other D-SNPs, and institutional Special Needs Plans (I-SNPs) only with other I-SNPs. Advantages to this option would be that the groups are already defined and must meet specific criteria to receive the special designation already, so group distinctions would be less artificial than at the contract level. Since there are some measures that apply only to SNPs, and some measures that include very small numbers of dually-enrolled beneficiaries, this might also create the opportunity to have more targeted measures that better-reflect the needs of this particular population.

On the other hand, the main drawback of plan-level stratification is similar to contract-level stratification: it may risk over-adjusting for things that are not directly related to dual/LIS status or things that are under provider control, including bias, discrimination, or the provision of poor-quality care. Additionally, many dually-enrolled beneficiaries are not in SNPs, so such stratification would exclude a significant proportion of dual/LIS beneficiaries.

Plan-level stratification would require measure respecification (or at least new sampling design); it could be budget neutral by design, by calibrating the star ratings to reward the same percent of contracts as under the current program.

Data limitations currently preclude simulation of plan-level stratification, since quality is recorded at the contract level, and many measures' specifications are such that sampling does not reflect plan-level performance.

#### Beneficiary-Level Stratification

Another type of stratification is within-contract stratification at the beneficiary level, also termed "population grouping". This approach was discussed by MedPAC in their September 2015 public meeting.<sup>2</sup> Population grouping creates a separate benchmark for each measure for each patient population of interest. For example, if average performance on diabetes control is 40% for disabled and 60% for non-beneficiaries with disabilities, a contract serving only beneficiaries with disabilities that performed at 45% on this measure would be considered "above average" in performance.

The attraction of population grouping is that it measures the "value add" that each contract provides, given its underlying population – contracts are explicitly rewarded for doing better than average within each group, rather than based on a single standard. This approach would potentially provide financial relief to high-dual contracts, depending on performance, and could reduce the disincentives to providing care to high-risk beneficiaries.

However, a potential drawback is that it rewards different levels of performance for different populations, and may reduce incentives to reduce disparities. There are also concerns regarding whether this option could be feasibly implemented for measures that are sampled, and thus represent only a subset of a contract's members. Transparency is a potential issue for any adjustment; in this case the resulting Star Rating may actually be a more accurate reflection of a contract's "value-add" given its patient population but a less straightforward reflection of absolute performance. This concern could be addressed by displaying both overall and group-level performance as components of the public reporting efforts for MA, though such reporting could be more difficult for beneficiaries to understand and act upon.

From an implementation standpoint, beneficiary-level stratification would likely require measure re-specification and rulemaking. It could be budget-neutral if the stars were re-calibrated accordingly.

To model this option, performance was calculated using indirect standardization (a technique to combine performance across groups when the "expected" outcome is different in each, which is

particularly useful with low sample size – see Appendix Table 8.6). When this option was modeled (Table 8.12) at the individual measure level (adjusting the 19 clinical measures noted above using this approach, and then combining these new scores with the unchanged measures to re-calculate stars), it had a modest impact. 20% of contracts were impacted; the gains were predominantly seen in high dual/LIS contracts, with 15% gaining at least half a star, but only one high-dual contract moved newly into the 4+ star group.

**Table 8.12: Adjusting Individual Measures using Population Grouping (via Indirect Standardization)**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.73</b>		<b>3.50</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	-0.05		+0.03		-0.06	
<b>Contracts Gaining Stars</b>	16	(4%)	11	(15%)	5	(1%)
<b>Contracts with No Change</b>	335	(81%)	58	(78%)	277	(81%)
<b>Contracts Losing Stars</b>	65	(16%)	5	(7%)	60	(18%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	1	(0%)	1	(1%)	0	(0%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	5	(1%)	0	(0%)	5	(1%)

A more expansive approach to population grouping was also modeled, with calculations at the overall star level rather than the individual measure level. In this case, two “average” Star Ratings were calculated across all contracts: one for dually-enrolled beneficiaries and one for non-dually-enrolled beneficiaries. Contracts were then judged against an expected star, calculated as a weighted average of these stars, based on their proportion of dually-enrolled beneficiaries and non-dually-enrolled beneficiaries.

This option provides a broader adjustment than just the clinical metrics; proponents of a broader adjustment approach would argue that this is more appropriate because it recognizes that contracts with a higher proportion of beneficiaries with social risk factors might require more resources to achieve quality for their members across a broad range of activities (including patient experience, call center staffing, etc.), and not only on the clinical metrics. Opponents of such a broad-based adjustment would argue that this risks rewarding contracts for poor performance, and adjusting for factors that are under providers’ control.

Similar to the prior option, from an implementation standpoint, beneficiary-level stratification to calculate stars would likely require measure re-specification and rulemaking. It could be budget-neutral if the stars were re-calibrated accordingly.

Under this approach, high-dual/LIS contracts gained more stars than under the prior option, because population grouping for overall star calculation calibrates performance based on total observed disparities across all measures rather than limiting the adjustment to only clinical measures or only within-contract disparities (Table 8.13). Modeling showed significant and strong impacts on contracts



serving a high proportion of poor or beneficiaries with disabilities, moving more than a third of high dual/LIS contracts up at least half a star, while moving approximately 6% of low-dual/LIS contracts down half a star. Under this option, 12% of high dual/LIS contracts moved newly into the 4+ star groups, while 4% of the low-dual/LIS contracts dropped newly below this threshold.

**Table 8.13: Adjusting Total Stars Using Population Grouping (via Indirect Standardization)**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.72</b>		<b>3.48</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.03		+0.19		0.00	
<b>Contracts Gaining Stars</b>	34	(8%)	28	(36%)	6	(2%)
<b>Contracts with No Change</b>	365	(87%)	49	(64%)	316	(92%)
<b>Contracts Losing Stars</b>	22	(5%)	0	(0%)	22	(6%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	11	(3%)	9	(12%)	2	(1%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	13	(3%)	0	(0%)	13	(4%)

#### **4. Rewarding Improvement (to a greater degree than the current program)**

In FY 2016, the MA Star Rating Program gives the improvement measure a weight of 5 out of 51.5 for Part C and 5 out of 30.5 for Part D, or a total of 12% of the overall Star Rating. The improvement measures are composites of improvement on all improvement-eligible measures in the program (i.e. not new or respecified), calculated by summing the weighted number of measures on which a contract improved, minus the number of measures on which a contract worsened, divided by the total weighted sum of measures.

A policy option focused on improvement could upweight the improvement measures (e.g., to 25% or 50% of total score) to influence the overall quality score more strongly (see Appendix Table 8.7).

Weighting improvement more heavily would potentially encourage those contracts whose performance is unlikely to meet the achievement benchmark, by rewarding them for moving in the right direction, and could provide financial relief to high-dual contracts that are showing improvement. This option is also responsive to stakeholder input, as plans have argued that they should be rewarded for significant improvement even if they have not yet achieved high quality on an absolute scale.

One potential drawback to this option is that it does not explicitly address social risk; if achievement is difficult in a socially at-risk population, improvement may also be difficult. In fact, if a plan's improvement is concentrated in populations without social risk factors, the plan could be rewarded for improvement even while disparities worsen. This option could also potentially reward contracts with low performance while failing to reward those with high performance, if the former improved while the latter did not. This would likely mean that some of the most consistently high-performing contracts would see their Star Rating diminish, which may not be desirable. Further, this option worsens problems with transparency, since a beneficiary seeking to choose a plan would be unable to determine whether the reported star represented true high performance or merely poor performance with significant

improvement from prior years. To preserve transparency, an additional reporting item or construct (one for improvement and one for attainment) might be required, though it is unclear whether the authority to do so currently exists. Additionally, it would likely be challenging to design such a system in a way that was easily interpretable for beneficiaries and successfully steered them to select higher-quality plans.

Implementation of this option would require rulemaking. It would be budget-neutral if the stars were recalibrated as part of the program calculation, as is done annually.

Modeling this option at the 25% level, added stars to a significant number of contracts' ratings; the impact was slightly larger in high-dual/LIS contracts (Table 8.14).

**Table 8.14: Upweighting Improvement to 25% of the Quality Star Rating**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.72</b>		<b>3.48</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.01		+0.05		+0.01	
<b>Contracts Gaining Stars</b>	43	(10%)	14	(18%)	29	(8%)
<b>Contracts with No Change</b>	345	(82%)	57	(74%)	288	(84%)
<b>Contracts Losing Stars</b>	33	(8%)	6	(8%)	27	(8%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	16	(4%)	7	(9%)	9	(3%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	2	(1%)	0	(0%)	2	(1%)

## 5. Providing Targeted Star Adjustments for High Performance for Beneficiaries with Social Risk Factors

The final policy option provides an explicit star adjustment for achieving high performance for dual/LIS beneficiaries. Three ways of applying this star adjustment directly to the Star Ratings were modeled, though this approach could also function as a separate incentive scheme.

The first option was to reward contracts that were able to achieve a 3.5-star or higher rating while enrolling a high proportion of dual/LIS or disabled individuals. There is precedent for this approach; in the physician value-based modifier program (Chapter 10), practices that meet the program-wide cost and quality criteria to receive a performance bonus and have highly medically complex patient populations are eligible for an additional 1% payment bonus (though no practices with highly complex beneficiaries met the bonus criteria in the first year of the program).<sup>11</sup>

The attraction of this option is that it sets a single quality standard, but gives additional rewards to contracts that are able to achieve that standard with a more challenging patient population. This gives contracts with a high proportion of beneficiaries with social risk factors both extra incentive and extra recognition for focusing on these individuals and contracts with a modestly high proportion of beneficiaries with social risk factors more of an incentive to increase their service to this group rather than avoid them.

One potential drawback to this option is that depending on where the star adjustment threshold is set, only a small proportion of contracts may qualify; further, this option would only reward those contracts that are already performing well and may do little to bring up the “floor” of the distribution.

From a budget standpoint, this option would not be budget neutral unless coupled with another change to the Quality Bonus Payment system (such as creating a scaled bonus instead of a 5% across-the-board bonus, for example).

When a star bonus equal to  $(0.5 \text{ stars}) \times (\text{proportion dual/LIS within a contract})$  was applied to only those contracts that already scored at least 3.5 stars, almost two-thirds of high dual/LIS contracts received the bonus. Almost 40% of the high-dual/LIS contracts newly moved above 4 stars (Table 8.15).

**Table 8.15: Targeted Star Adjustment by Social Risk for Contracts at or above 3.5 stars**

	All Contracts		High-Dual/LIS Contracts (top quintile)		Low-Dual/LIS (all other) Contracts	
<b>Average Stars (baseline)</b>	<b>3.73</b>		<b>3.49</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.12		+0.32		+0.08	
<b>Contracts Gaining Stars</b>	82	(19%)	49	(64%)	33	(10%)
<b>Contracts with No Change</b>	342	(81%)	28	(36%)	314	(90%)
<b>Contracts Losing Stars</b>	0	(0%)	0	(0%)	0	(0%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	45	(11%)	29	(38%)	16	(5%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	0	(0%)	0	(0%)	0	(0%)

The second approach modeled was to reward contracts that have a high proportion of dual/LIS or disabled individuals, but have improved significantly. The star bonus was calculated as  $(\text{Part C improvement stars}/10) \times (\text{percentage of dual/LIS})$ ; since the maximum improvement Star Rating is 5, this formula makes the maximum star bonus equal to 0.5 stars, as above. This star bonus was only awarded to contracts that received a Part C improvement star of 4 or 5 and that had an overall star that was less than 4 stars. This option would specifically help low-performing contracts that are making progress towards their goals, but has the downside of failing to reward those contracts that are already performing well for beneficiaries with social risk factors. Again, it would not be budget neutral without other changes to the program.

Modeling showed that this star bonus led to 26% of high dual/LIS contracts gaining at least half a star, as shown in Table 8.16.

**Table 8.16: Targeted Star Adjustment for Improvement for Contracts below 4 stars**

	<b>All Contracts</b>		<b>High-Dual/LIS Contracts (top quintile)</b>		<b>Low-Dual/LIS (all other) Contracts</b>	
<b>Average Stars (baseline)</b>	<b>3.73</b>		<b>3.49</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.04		+0.14		+0.02	
<b>Contracts Gaining Stars</b>	34	(8%)	20	(26%)	14	(4%)
<b>Contracts with No Change</b>	390	(92%)	57	(74%)	333	(96%)
<b>Contracts Losing Stars</b>	0	(0%)	0	(0%)	0	(0%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	23	(5%)	16	(20%)	7	(2%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	0	(0%)	0	(0%)	0	(0%)

The third type of star bonus focused not just on high performance for contracts with a high proportion of beneficiaries with social risk factors, but rather for achieving high performance specifically for those beneficiaries with social risk factors – this can be considered as one example of how an “equity bonus” or “equity measure” might be constructed. First, a weighted average of the ratios of each contract’s performance for dual/LIS beneficiaries on each of the 19 clinical measures versus the average performance for dual/LIS beneficiaries across all contracts in the respective clinical measure was created. A bonus of  $0.5 \times (\text{proportion dual/LIS})$  was applied for all contracts for which this weighted ratio was greater than 1. For example, if a contract had an 80% pass rate for a particular measure for its dual/LIS beneficiaries, when the average was 75% pass rate, that contract would receive a ratio for that measure of  $80/75$  or 1.07. This 1.07 ratio would be averaged in a weighted fashion (using the weights assigned under the Star Rating scheme) with similarly created ratios for the other 18 measures to create a final ratio. If that ratio is greater than 1, a  $0.5 \times \text{proportion LIS/dual}$  bonus would be applied, such that if a contract had 100% dually-enrolled beneficiaries it would receive the full 0.5 star bonus. If it had 75% dually-enrolled beneficiaries it would receive  $0.5 \times 0.75$ , or 0.44, stars.

The positive feature of this approach is that it explicitly rewards achieving good outcomes in beneficiaries with social risk factors, and puts extra money on the table to incent contracts to do so. As dual beneficiaries tend to be higher-cost, incenting a focus on these beneficiaries may have long-term benefits in terms of efficiency and cost reduction.

This approach would not be budget neutral unless a negative ratio were also applied to reduce Star Ratings for contracts that failed to meet the average performance for the populations of interest, or unless a separate penalty were applied for contracts that do not serve a high proportion of beneficiaries with social risk factors.

When this approach was modeled (Table 8.17) 34% of high dual/LIS contracts gained at least half a star; 12% newly rose to meet the four-star threshold.

**Table 8.17: Targeted Star Adjustment for High Performance for Socially At-Risk Beneficiaries**

	<b>All Contracts</b>		<b>High-Dual/LIS Contracts (top quintile)</b>		<b>Low-Dual/LIS (all other) Contracts</b>	
<b>Average Stars (baseline)</b>	<b>3.73</b>		<b>3.49</b>		<b>3.78</b>	
<b>Average Change in Stars</b>	+0.07		+0.17		+0.05	
<b>Contracts Gaining Stars</b>	52	(12%)	26	(34%)	26	(7%)
<b>Contracts with No Change</b>	372	(88%)	51	(66%)	321	(93%)
<b>Contracts Losing Stars</b>	0	(0%)	0	(0%)	0	(0%)
<b>Contracts Rising from &lt;4 to ≥4 stars</b>	19	(4%)	9	(12%)	10	(3%)
<b>Contracts Dropping from ≥4 to &lt;4 stars</b>	0	(0%)	0	(0%)	0	(0%)

## 6. Summary of Policy Options

Each of the policy options presented has strengths and weaknesses, and should be considered in the context of the policy goals outlined in the introductory chapters and the potential for positive impact. A summary of the gains and losses in stars under each option is presented in Tables 8.18a/b. Tables showing the average change in stars under each option and the number of contracts that newly meet or newly drop below the 4 star threshold under each option are provided in Appendix Tables 8.8 and 8.9.

**Table 8.18a: Net Impact of Policy Options: Percent of Contracts that Gain at Least Half a Star**

	<b>Overall</b>	<b>High-Dual/LIS Contracts (top quintile)</b>	<b>Low-Dual/LIS (all other) Contracts</b>
<b>Direct Adjustment</b>	10%	9%	10%
<b>Categorical Adjustment Index</b>	3%	14%	1%
<b>Stratification</b>	1%	4%	1%
<b>Population Grouping: Measure Rate</b>	4%	15%	1%
<b>Population Grouping: Star Level</b>	8%	36%	2%
<b>Reward Improvement 25%</b>	10%	18%	8%
<b>Targeted Star Adjustment for Achievement</b>	19%	64%	10%
<b>Targeted Star Adjustment for Improvement</b>	8%	26%	4%
<b>Targeted Star Adjustment for Equity</b>	12%	34%	7%

**Table 8.18b: Net Impact of Policy Options: Percent of Contracts that Lose at Least Half a Star**

	Overall	High-Dual/LIS Contracts (top quintile)	Low-Dual/LIS (all other) Contracts
Direct Adjustment	8%	8%	8%
Categorical Adjustment Index	0.2%	0%	0.3%
Stratification	36%	25%	39%
Population Grouping: Measure Rate	16%	7%	18%
Population Grouping: Star Level	5%	0%	6%
Reward Improvement 25%	8%	8%	8%
Targeted Star Adjustment for Achievement	0%	0%	0%
Targeted Star Adjustment for Improvement	0%	0%	0%
Targeted Star Adjustment for Equity	0%	0%	0%

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying relationships

- Dually-enrolled beneficiaries, beneficiaries living in low-income neighborhoods, Black beneficiaries, rural beneficiaries, and beneficiaries with disabilities experienced worse outcomes compared to other beneficiaries on many to most of the quality metrics included in the Medicare Advantage Quality Star Rating program. These differences were small to moderate in size, and largely driven by patient rather than contract factors. Hispanic beneficiaries had better outcomes on most measures.

#### Program Impact

- Contracts with a high proportion of beneficiaries with social risk factors generally did worse on overall quality scores, and were much less likely to receive quality bonus payments. However, a small number of contracts serving predominantly dually-enrolled / low-income subsidy-enrolled beneficiaries performed well on the quality measures overall.

#### Policy simulations

- Adjusting for social risk at the measure level, either directly or using an index, led to small changes in performance scores for contracts overall, though there were small gains in high-dual contracts. These small changes were the result of two factors: first, the differences in performance between dually-enrolled beneficiaries and non-dually-enrolled beneficiaries are small to moderate in size, so for some measures adjustment makes little difference in scores; second, only the patient-level clinical measures were adjusted, and no adjustments were applied to any of the patient experience or contract-level measures.
- Upweighting the improvement measures had a limited impact.

- Stratifying contracts by proportion dual led to changes in Star Ratings; using population grouping to stratify within contracts also led to changes in Star Ratings.
- Providing star adjustments for improvement or achievement in beneficiaries with social risk factors, or for equity, led to changes in Star Ratings.

## B. Strategies and Considerations

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors.

### STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors, or for subgroups of plans (e.g., special needs plans) on key quality and resource use measures.**

The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible.

Current data collection in the MA program is not optimally structured for data collection on beneficiaries with social risk factors. Specifically, the ability of CMS to adequately evaluate performance for subgroups on many of the measures in the program is limited by small sample size and non-targeted sampling. For example, the average contract in 2014 had over 31,000 beneficiaries spread across 3-5 plans; average dual enrollment per contract was roughly 9,000, though many contracts had fewer than 100 dually-enrolled beneficiaries. However, many HEDIS measures are required to be collected on only 411 beneficiaries due to the need for medical record review, which may or may not be representative of any plan benefit package or subgroup. The measure specifications do not allow adequate differentiation of quality at the beneficiary type or plan level. These limitations mean that presently there is limited ability to track disparities in care by plan, or to ensure that any contract's reported quality applies to dual beneficiaries, or to racial or ethnic minorities.

In addition, to the degree that beneficiaries are split across not only different plans but also different plan types (particularly SNPs), the current strategy does not allow for the fullest assessment or incentivization of quality for these plans, which often serve beneficiaries with social risk factors. There are a small number of SNP-only measures, but these do not measure the full spectrum of quality and outcomes. Given improvements in data collection and management over the past years, expanding data collection could improve the MA program's ability to directly incent improvements in care in SNPs and reductions in disparities overall. However, this would likely require additional resources.

Expanding data collection and moving as feasible towards measures that are less resource-intensive to



collect, such as those in electronic health records or existing registries, would allow for better evaluation of subpopulations on the quality, outcomes, and costs of care delivered and a higher likelihood of reducing disparities in care without a significant expansion of the reporting burden for contracts. In terms of provider reporting burden, combining data collection for MA quality measures with the measures collected under the Physician VM program, or its successor, the Merit-Based Incentive Payment System (MIPS), could increase efficiency and reduce reporting burden, and should be pursued where helpful.

When adequate data are available, key quality and resource use measures stratified by social risk should be developed and considered for contract feedback and/or public reporting, so that contracts, policymakers, and consumers can see and address important disparities in care. While not all measures may lend themselves to reporting by subgroup, a key subset of measures should be pursued for subgroup reporting at the contract level.

**CONSIDERATION 2: Measure developers should develop measures that are meaningful for Medicare beneficiaries with disabilities, where many current measures do not apply.**

Many of the quality measures do not apply to the under-65 population at all, and thus this group is particularly prone to under-representation in quality assessment. Given findings here and in prior reports that disability is a powerful driver of quality and outcomes both independently and within the context of dual enrollment,<sup>2</sup> beneficiaries who are both dually enrolled and have a disability should be a particular focus of any such plan to focus improvement efforts on particular populations.

**CONSIDERATION 3: Consider developing and introducing a new measure or domain on Achieving Health Equity into the MA program to assess and reward health plan efforts to reduce health disparities.**

As outlined in Chapter 4, the report from the National Academies of Sciences, Engineering, and Medicine performed under the IMPACT body of work supported the prioritization of equity as a key strategy in delivering high-quality care to beneficiaries with social risk factors.<sup>12</sup> A new measure or domain for health equity should be created, to explicitly incent contracts to focus on achieving more equal outcomes for dually enrolled beneficiaries and/or beneficiaries with disabilities in comparison to their peers. This is not feasible in the short term, as measures applicable to this domain do not currently exist, but such measures should be developed as part of the Department's strategy to ensure that value-based purchasing programs do not inadvertently worsen disparities in care and outcomes. This has also been suggested elsewhere in this report and by stakeholders, and may apply to other settings, and represents an important means for both tracking and reducing disparities in health outcomes.

**CONSIDERATION 4: Prospectively monitor the financial impact of the MA program (magnitude of bonuses, etc.) on providers disproportionately serving beneficiaries with social risk factors.**

As the Medicare Advantage program continues to change, prospectively monitoring the program's financial impact on providers disproportionately serving beneficiaries with social risk factors is critical. This is important both for SNPs and for other plans that serve high proportions of beneficiaries with social risk factors.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: A temporary adjustment index by contracts' dual and disability makeup should be used in the short term, as outlined in the 2017 Rate Announcement and Call Letter. The measures used in the current MA program should continue to be examined to determine if adjustment for social risk factors is appropriate.**

CMS recently finalized an interim analytical adjustment to Star Ratings for FY 2017 using a version of the adjustment index modeled above. This index does not adjust the measures themselves, and instead provides a targeted adjustment to contracts with a high proportion of dually enrolled and/or disabled beneficiaries. In terms of the policy criteria, a pro for this index is that it adjusts fairly narrowly in an effort to limit the adjustment to only what is related directly to the social risk factor and only to what is beyond provider control. It also does not adjust the measures themselves, so it preserves transparency. Overall, an adjustment index is a reasonable strategy given these policy criteria.

It is also worth noting that the accuracy of performance measurement should not be conflated with the accuracy or adequacy of payment. Entirely separately from the adjustment index described above, the MA risk adjustment methodology for FY 2017 also addressed an under-prediction of costs for full dually-enrolled beneficiaries and thus provides a higher payment adjustment for full-dual enrollees. This will likely provide significant financial support to high-dual/LIS contracts, but is not a payment for the higher administrative burden for serving beneficiaries with social risk factors nor intended to address any issues around quality measurement or reward.

Contract-level stratification, depending on how operationalized, has the potential to provide greater protection from financial stress for contracts, but stratification risks over-adjusting for factors that are not directly related to dual enrollment, such as the provision of poor quality care, and for factors that are within providers' control, such as bias. Therefore this is not recommended.

Stratifying at the plan level, for example to compare only D-SNPs with D-SNPs, is not currently feasible given data limitations, but may be a promising long-term strategy because it would provide more equitable opportunities to achieve Quality Bonus Payments while also allowing a direct focus on improving care for special populations. This approach might help make disparities more visible, and

ultimately more addressable, by separating the performance of plans that serve beneficiaries with social risk factors out from the larger contract context where they can currently be difficult to assess.

However, there are two major limitations to this strategy: first, there are sample size issues with the measures currently included in the program that would make it impractical to apply to SNPs, or to plan-level analyses in general. This would need to be addressed by using different measures – for example, ones currently used in the Physician VM program (Chapter 10) with much lower sample size requirements – or by developing new measures for this setting. The second major issue is that focusing on D-SNPs would not provide any financial protection for contracts that enroll a high proportion of dually-enrolled beneficiaries but do not provide D-SNPs. Requiring dually-enrolled beneficiaries to enroll in D-SNPs would not be a reasonable policy, since this could limit access and create a two-tiered system. Therefore, plan-level stratification is not currently recommended.

Stratifying at the beneficiary level would make disparities more visible, and has the potential to be a fairer approach for some measures, but applying this strategy broadly could risk over-adjusting for factors under providers' control, and data limitations currently preclude its use. Therefore, it is not currently recommended.

The improvement options examined would potentially reduce financial stress, but would not be budget-neutral, and in and of themselves do not incent a reduction in disparities. They may make transparency more difficult. Therefore, upweighting improvement above its current weight is not currently recommended.

Based on the available evidence and policy criteria, a short-term adjustment index is a reasonable strategy for accounting for social risk. Longer-term changes that would improve the fairness and accuracy of quality measurement in the MA program and incent higher quality care for beneficiaries with social risk factors require strategies beyond simply accounting for social risk and are covered in the considerations that follow.

**CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

The MA program includes a number of measures across many different domains. Some of these measures, particularly the clinical outcome measures, may be more robust if they are updated to include additional measures of medical and related risk (such as multimorbidity, functional status, disability, etc.). Targeted exclusions may be appropriate in some cases, where high levels of complexity preclude fair comparison between beneficiaries and providers. In particular, outcome and intermediate outcome measures are likely sensitive to differences in patient populations – for example, it is typically

much more difficult to control diabetes in the presence of other chronic illnesses, such as kidney disease, liver disease, or heart disease, than in the absence of such factors. Processes to examine these measures are ongoing via the National Quality Forum (NQF) and others. Making these measures more robust could decrease the measured effect of dual enrollment on outcomes under quality measures, given that prior evidence suggests some of the effect of being dually-enrolled on these measures is mediated through higher levels of medical complexity and/or worse functional status.

Better accounting for medical risk would meet many policy criteria because it would adjust for factors that are directly related to outcomes and for factors that are outside contracts' control, and promote transparency. In many ways, improved accounting of medical risk and complexity is an ideal policy solution, but it is difficult and time-consuming, and will require a concerted effort not only from the Department but from stakeholders more broadly.

### **STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the key findings in this chapter was the wide distribution of performance among contracts serving high-social-risk populations. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of contracts, or more resources and more support, than achieving the same outcomes in a lower-risk population.

#### **CONSIDERATION 1: Consider providing targeted star adjustments to reward contracts that achieve high quality or improve significantly for dually-enrolled beneficiaries.**

The adjustment index outlined above is an example of the type of targeted adjustment that preserves transparency while recognizing that it may be more difficult to achieve high quality and good outcomes in beneficiaries with social risk factors. In the long term, alternative versions of such a targeted adjustment could be considered. For example, targeted star adjustment could be created to reward providers that achieve good outcomes in socially high-risk populations, or that improve significantly, as modeled above. Targeted adjustments could be applied differentially to different types of measures groups or domains, such as processes versus outcomes. This would be particularly beneficial under the policy criteria of reducing disparities and protecting contracts from undue financial stress. While this option is not budget-neutral, it has the potential to be efficient in the long run if it improves quality and outcomes for these typically high-need groups. Money to reward contracts that perform particularly well for beneficiaries with social risk factors could be reallocated from current Quality Bonus Payments by moving to a scaled Quality Bonus Payment system rather than an all-or-nothing 5% bonus at the 4-star threshold, which may have additional value in terms of the behavioral economics of incenting contracts to continually improve.

#### **CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to contracts serving a high proportion of beneficiaries who are dually-enrolled or**

**who have disabilities.**

Performance for some social risk groups on many quality measures is lower than other subgroups, indicating that new strategies and programs may be needed to ensure that disparities can be reduced or eliminated; the MA program can be a driver for this type of innovation. New or existing quality improvement programs could be used to provide targeted assistance to contracts or plans serving beneficiaries with social risk factors.

**CONSIDERATION 3: Consider requiring that contracts serving dually-enrolled beneficiaries coordinate benefits between Medicare and Medicaid; barriers to integration of services between the two payers as well as barriers to spending flexibility for supplemental benefits for dually-enrolled beneficiaries should be minimized where feasible.**

Specific groups of contracts, in particular those that fully integrate benefits between Medicare and Medicaid, have had particular success in treating dually-enrolled beneficiaries. As mentioned in the report from the National Academies of Sciences, Engineering, and Medicine conducted for IMPACT, The United States Government Accountability Office (GAO) reported that the fully-integrated dually-enrolled special needs plans (FIDE-SNPs) have better performance than that seen in the other D-SNPs: though the overall numbers were small, GAO reported that 14 (56 percent) of the 25 FIDE-SNPs met criteria for high quality but only 24 (14 percent) of all other 169 D-SNPs met these criteria.<sup>13</sup> However, despite higher quality, clinical outcomes and costs were not better in these SNPs, suggesting coordinating benefits may be necessary but not sufficient to achieve good outcomes. These patterns were less consistent for contracts with a high proportion of dual-disabled individuals,<sup>14</sup> suggesting as mentioned above that more attention in terms of measuring and improving quality might be particularly warranted in this highly socially at-risk group.

However, given this success, and the importance of highly coordinated and wrap-around care for beneficiaries at socially at-risk, contracts that serve dually-enrolled beneficiaries should coordinate benefits for these beneficiaries to the fullest degree possible. MedPAC has recommended this previously, stating “Congress should permanently reauthorize dual-eligible special needs plans (D-SNPs) that assume clinical and financial responsibility for Medicare and Medicaid benefits and allow the authority for all other D-SNPs to expire.”<sup>15</sup>

**CONSIDERATION 4: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

In the MA setting, there are many promising demonstrations and models currently in place that have the potential to discover care innovations for beneficiaries with social risk factors that could be scaled. The strategies learned from ongoing demonstration projects and/or from successful contracts that may help optimally treat beneficiaries with social risk factors should be disseminated where feasible.

For example, strategies suggested by the National Academies of Sciences, Engineering, and Medicine, including the importance of care coordination, the use of comprehensive needs assessments, formation of collaborative partnerships with community organizations and home and community-based services providers, providing care continuity across settings, and engaging beneficiaries in their care, are being tested in demonstration programs currently. Where successful, lessons learned from these programs should be shared more broadly.

**CONSIDERATION 5: Consider further research to examine the costs of caring for beneficiaries with social risk factors to determine whether current payments adequately account for differences in care needs.**

One final piece of information that could be critical for policy recommendations in the future would be to understand more about the true costs of achieving good outcomes for beneficiaries with social risk factors. As noted above, the current payment adjustments for these groups are based on their levels of spending on medical care – for example, appointments, hospitalizations, and medications. However, some contracts argue that the administrative costs of achieving good outcomes in these groups are high, and not taken into account.

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## CHAPTER 9: The Medicare Shared Savings Program

### In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on the cost and quality measures that comprise the Medicare Shared Savings Program?*
- *Is there a relationship between Accountable Care Organization (ACO) social risk profile and performance on the cost and quality measures that comprise the program?*
- *Are ACOs that serve a high proportion of beneficiaries with social risk factors less likely to share in savings under the Medicare Shared Savings Program?*
- *How would potential policy options to address issues of social risk and performance in the Medicare Shared Savings Program affect shared savings?*

This chapter presents findings on the relationship between beneficiary or ACO social risk and performance under the Medicare Shared Savings Program, and examines policy options.

### Key Findings:

#### Underlying Relationships

- Dually-enrolled and Black beneficiaries, as well as beneficiaries with disabilities, were more likely to be readmitted, even after controlling for differences in patient risk. These disparities were very similar to those found in the HRRP analyses (Chapter 5), though the raw readmission rates in ACO beneficiaries in general were lower than those seen in the overall FFS population.
- Within the same ACO, dually-enrolled, Black, and Hispanic, beneficiaries, as well as beneficiaries with disabilities and those from low-income ZCTAs, had greater odds of being admitted for COPD (but not for HF) than other beneficiaries, even after risk-adjustment.
- Beneficiary-level factors were generally a larger contributor to readmission rates than ACO-level factors. Beneficiaries in high-dual, high-disabled, and high-Black ACOs were more likely to have preventable admissions for COPD, even once patient clinical risk was taken into consideration.

#### Cost and Quality Performance among ACOs Serving Socially at-risk Populations

- ACOs in the highest quintile of the proportion of beneficiaries with social risk factors served had comparable scores on the majority of quality measures to ACOs serving an average population.
- ACOs in the highest quintile of the proportion of beneficiaries with social risk factors served had, on average, higher cost benchmarks than ACOs serving an average population.
- In general, ACOs serving beneficiaries with social risk factors had greater savings and were more likely to share in savings relative to ACOs overall.

Policy Simulations

- Providing a bonus for ACOs that served a high-dual population increased per-beneficiary savings.
- Moving to a regional benchmark was associated with higher absolute savings for high-dual ACOs but created a disparity between these and other ACOs in achieving shared savings.

**Strategies and Considerations for the Medicare Shared Savings Program**

<b>SUMMARY OF STRATEGIES AND CONSIDERATIONS</b>
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.
CONSIDERATION 2: Measure developers should develop key quality and resource use measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors.
CONSIDERATION 3: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the Medicare Shared Savings Program to assess and reward ACO efforts to reduce health disparities.
CONSIDERATION 4: Prospectively monitor costs and savings for ACOs disproportionately serving high proportions of dually-enrolled beneficiaries as the benchmark rebasing methodology that accounts for factors based on FFS spending in the ACO's regional service area takes effect.
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>
CONSIDERATION 1: The measures used in the Medicare Shared Savings Program should continue to be examined to determine if adjustment for social risk factors is appropriate.
CONSIDERATION 2: Ambulatory care-sensitive condition admission measures should account for medical risk, as CMS has announced will be done in future program years (see 2017 PFS final rule, published November 2016).
CONSIDERATION 3: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers. Attention should also be given to developing quality and outcome measures specifically designed for the ACO setting.
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider providing additional financial incentives to reward ACOs that achieve high quality or significant improvement specifically among their beneficiaries with social risk factors.
CONSIDERATION 2: Consider providing targeted technical assistance to ACOs that disproportionately serve beneficiaries with social risk factors to help improve quality.
CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors in ACOs.
CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors.

## I. Introduction

### A. Background

The Medicare Shared Savings Program was established by section 3022 of the Affordable Care Act (ACA) and is a key component of the ACA's delivery system reform initiatives. A voluntary program available to accountable care organizations (ACOs), the Medicare Shared Savings Program uses financial incentives tied to quality metrics and savings with the goal of increasing coordination of care and reducing unnecessary costs for Medicare beneficiaries. ACOs are groups of providers and suppliers that have agreed to be accountable for the care of a defined population of Medicare fee-for-service (FFS) beneficiaries and have at least 5,000 assigned Medicare beneficiaries for each benchmark and performance year.<sup>1</sup>

The first group of ACOs entered the program in 2012 with agreement start dates of April 1 and July 1. Additional ACOs have entered into 3-year agreements to participate in the program, with agreement periods beginning January 1 of each year. A typical performance year corresponds to the calendar year (January 1 – December 31), however, in the case of April and July 2012 starters, the first performance year was 21 months and 18 months respectively (concluding December 31, 2013). Their second PY ran from January 1, 2014 through December 31, 2014, and their third PY from January 1, 2015 through December 31, 2015. There is an annual application for providers to join the Medicare Shared Savings Program and new start dates on January 1 of each year. The second, third, and fourth groups of ACOs entered the Medicare Shared Savings Program on January 1 of 2014, 2015, and 2016, respectively. As of April 2016, there were over 430 ACOs participating in the Medicare Shared Savings Program, with over 7.7 million assigned beneficiaries.<sup>2</sup>

Under the Medicare Shared Savings Program, ACOs can choose one of three payment model “tracks.” Under Track 1, the ACO faces only “upside” risk: ACOs are eligible to share in any savings they achieve if they have savings above the minimum savings rate (MSR), but do not share in losses. Under Tracks 2 and 3, the ACO faces two-sided risk and is eligible for sharing both savings as well as losses. (Note Track 3 was added with the June 2015 final rule (Medicare Shared Savings Program; Accountable Care Organizations Final Rule (80 FR 32692) (June 2015 final rule)) and became available to ACOs with agreement start dates of 2016 and subsequent years. Since Track 3 ACOs are not included in these analyses, details specific to Track 3, which is based on prospective beneficiary assignment rather than retrospective beneficiary assignment as under Tracks 1 and 2, have been omitted.) To date, the vast majority of participating ACOs (95%) are in Track 1. Five Track 2 ACOs with 2012 and 2013 start dates were reconciled for the performance year ending 12/31/2013, and by the conclusion of performance year 2014 3 ACOs remained in Track 2. As of April, 2016, 6 ACOs were in Track 2 and 16 were in Track 3.

The sample for analysis in this chapter consists of ACOs that entered the Medicare Shared Savings Program in 2012, 2013, and 2014 (n=333) and data from PY 2014 are used in primary analyses presented here. Further, the program design details (e.g., number of performance measures) and rules described in this chapter reflect those in place during 2012-14, except where noted otherwise; some of these rules

have changed in the years since and thus the rules described in this chapter do not always reflect the current program.

#### Payment under the Medicare Shared Savings Program

Under Tracks 1 and 2 in the first two PYs of the Shared Savings Program, payments were determined in four steps: (1) assignment of beneficiaries to ACOs for each of 3 benchmark years (historical costs), and annually for each performance year, (2) calculation of an expenditures benchmark and determination of the updated benchmark annually, (3) savings or losses determined by comparing actual expenditures for performance year assigned beneficiaries to benchmark expenditures, accounting for the ACO's quality performance and other requirements of the program's financial models, and (4) once savings/losses are calculated, the sharing/loss rate (e.g., how much of their savings the ACO keeps) is determined by the ACO's quality score.

#### *Beneficiary Assignment*

Under Track 1 and 2 in the first two PYs of the Medicare Shared Savings Program, Medicare FFS beneficiaries were assigned retrospectively to an ACO based on receiving a plurality of primary care services from primary care providers within the ACOs (measured in allowed charges). Eligible beneficiary must have had at least one month of Part A and B enrollment and have received at least one primary care service with an ACO physician. According to the requirements established with the November 2011 final rule (Medicare Shared Savings Program: Accountable Care Organizations Final Rule (76 FR 67802) (November 2011 final rule)), beneficiaries who had no primary care services from a primary care physician were assigned to the ACO based on the plurality of primary care services furnished by certain other ACO professionals. Before the start of each PY, the ACO received a preliminary list of prospectively assigned beneficiaries for planning purposes, based on the most recent 12 months of claims, and this preliminary prospective assignment list is updated quarterly.

#### *Calculation of an Expenditures Benchmark*

To determine whether the ACO saved money, a benchmark must be established at the start of each agreement period (three-year contract). Under the program rules governing PY 2012, 2013, and 2014, an ACO's benchmark for its first agreement period was calculated based on three years of historical FFS spending for four groups of beneficiaries who would have been assigned to the ACO: those with End-Stage Renal Disease (ESRD), those who are disabled, the aged population who are dually eligible for Medicaid, and the aged population who are not dually eligible. The first two years of data, (the first two benchmark years (BY), BY1 and BY2) were trended forward to BY3 dollars using the national growth rate for FFS expenditures in Medicare Parts A and B with each year weighted equally. The benchmarks for each beneficiary population were risk-adjusted using the CMS Hierarchical Condition Categories (HCC) model and were updated each year of the agreement period. The fact that the cost benchmark was risk-adjusted is relevant when assessing the relationship between social risk and ACO performance.

In accordance with the Final Rule issued by CMS on June 6, 2016 (81 Fed. Reg. 37950), the process of resetting (or rebasing) an ACO's benchmark will change for second or subsequent agreement periods on

or after January 1, 2017. Changes in the benchmark methodology used to rebase and update the ACO's benchmark aim to make the ACO cost target less dependent on historical expenditures and more reflective of FFS spending in its region. In turn, these changes aim to improve incentives for ACOs to generate cost savings and increase retention and participation among high-performing ACOs located in areas with high underlying cost growth. Under the new methodology, each ACO's benchmark would reflect both its own historical spending and the difference between its own spending and spending levels in the ACO's region (see June 2016 Final Rule for additional details).<sup>3</sup>

#### *Determination of Savings and Losses and the Role of Quality Scoring in PY14*

The process for determining shared savings under track 1 during the first two performance years of program implementation is shown in Figure 9.1. ACOs were eligible to share in their savings if their actual spending was below their benchmark and their savings met or exceeded a minimum savings rate (MSR) which was a percentage of the ACO's updated benchmark. The MSR varied based on ACO size (2-3.9%, with small ACOs having higher MSRs due to uncertainty). The percentage of savings an ACO was eligible to keep was based on its quality score as described below, assuming the ACO met a minimum quality threshold. The maximum sharing rate an ACO could achieve was 50% under track 1 and 60% under track 2. The actual sharing rate was determined based on an ACO's quality score (actual sharing rate = quality score × maximum sharing rate).

For the performance and program years covered in this analysis, ACOs' quality scores were based on performance on 33 quality measures across four domains: patient/caregiver experience, care coordination/patient safety, preventive health, and at-risk populations. For a full list of quality measures, please see the Appendix to this chapter. In the first year of an ACO's 3-year agreement period (PY1 for each ACO), quality was judged on a "pay-for-reporting" basis, under which ACOs were eligible for shared savings if they report accurately on 100% of measures, regardless of actual performance on quality measures. For ACOs in their second performance year in 2014, 25 of the 33 measures were based on actual performance (with the remaining eight based on reporting), and in PY3, 32 measures were based on performance with one measure (health status/functional status) based on reporting only. There are additional changes to future program years, but those are not covered here.

For each pay for reporting measure, ACOs received 2 points. A sliding scale was used to determine an ACO's points for each pay for performance measure, and measure-specific performance benchmarks were published prior to each performance year. For a performance level below the 30<sup>th</sup> percentile of FFS data, the ACO received no points, and for performance at or above the 90<sup>th</sup> percentile of FFS data, a maximum of two points (with the exception of the electronic health record measure, which is double-weighted to signal its importance). For the full sliding scale applied in the 2014 performance year (aligned with the results shown in this chapter), please see the Appendix to this chapter. A domain score, the percent of total points available for the domain that the ACO earned, was calculated for each domain and then the domain scores were averaged to get the final quality score.

The process of achieving shared savings is summarized in Figure 9.1:

**Figure 9.1: Determination of shared savings in the Medicare Shared Savings Program, track 1****B. Existing Research on Social Risk Differences in the Medicare Shared Savings Program**

As the Medicare Shared Savings Program is a relatively new program, there is little prior research examining the relationship between social risk and performance in this setting. One study suggested that the Medicare Shared Savings Program population as a whole might not be representative of Medicare beneficiaries at high social-risk, finding in the first year of the Medicare Shared Savings Program that ACO beneficiaries tended to be older and higher-income while non-ACO beneficiaries were more likely to be Black, dually-enrolled, and disabled.<sup>4</sup>

Studies of commercial (non-Medicare Shared Savings Program) ACOs have also demonstrated minimal improvements in quality and slightly lower costs, particularly in beneficiaries at high medical risk, but social risk was not examined independently.<sup>5</sup> Further, commercial ACOs may differ from Medicare ACOs in important ways.

In terms of spending, research on a precursor to ACOs, the Physician Group Practice Demonstration, demonstrated that savings, when achieved, were concentrated among dually-enrolled beneficiaries.<sup>6</sup> A study of large provider groups demonstrated that group size and quality were not consistently associated with lower racial disparities in care.<sup>7</sup> Other research on disparities between beneficiaries with social risk factors and their peers on outpatient and inpatient quality measures, many of which are included in the Medicare Shared Savings Program as well as other CMS programs, is outlined in the other chapters (for example, readmissions in Chapter 5, outpatient quality measures in Chapter 8).

**C. Limitations**

Most critically, as outlined in the introductory chapters, the analyses in this Chapter, as throughout the report, can only provide associations and not causality or mechanism. While conducting analyses that focus on the within-ACO differences between dually-enrolled and non-dually-enrolled beneficiaries help to isolate the effect of the beneficiary characteristics, these analyses cannot control for the possibility



that dually-enrolled beneficiaries may see lower-quality clinicians within the organization, or may face bias or discrimination. The analyses can also not determine whether any of these within-ACO effects are related to differential access to care outside the ACO in question. Similarly to the other settings examined in this report, the definitions of social risk in this chapter are limited to those currently available in Medicare data. These data limitations leave open the possibility of other equally or more important social risk factors that are not addressed here.

One data-related caveat specific to this Chapter is that the Medicare Shared Savings Program defines dual enrollment slightly differently than some other programs (the Medicare Shared Savings Program does not include categories 03 (Specified Low-Income Medicare Beneficiary (SLMB)-only), 05 (Qualified Disabled Working Individual (QDWI)), 06 (Qualifying Individuals (QI)), or 09 (Other dual eligible, but without Medicaid coverage) in its count of dually-enrolled beneficiaries,<sup>8</sup> whereas in some other programs and throughout this Report all are included in the dually-enrolled category).

Additionally, data are limited in terms of beneficiary-level quality measures captured in claims data; ACOs submit most quality measures on a sample of beneficiaries through a web interface and therefore many of the metrics are not available for all beneficiaries. Thus, patient-level analyses in this chapter are limited to a small subset of metrics, including readmissions and ambulatory care-sensitive condition admissions.

Finally, this Report focuses on historical performance; as past performance may not always predict future performance, the policy simulations should be interpreted as estimates, particularly in light of the ongoing program improvements through rulemaking.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the quality measures established for the Medicare Shared Savings Program. Next, it examines the performance of ACOs serving a high proportion of beneficiaries with social risk factors on these measures, and then the performance of these ACOs under the Medicare Shared Savings Program shared savings calculations. Finally, it outlines and simulates a set of potential policy options (and planned future program changes) related to adjustment for social risk, differentially rewarding improvement, and moving to regional benchmarking. Finally, strategies and considerations for the Medicare Shared Savings Program are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

### **A. Patient Characteristics**

In total, there were 5.3 million beneficiaries assigned to ACOs participating in the Medicare Shared Savings Program in 2014. Of these beneficiaries, 21.6% were partially or fully dual-enrolled (5.4% partial and 16.2% full dual), and over 25% originally qualified for Medicare on the basis of a disability. The ACO



population was less often dually-enrolled, qualified for Medicare based on a disability, or rural, than the overall Medicare FFS population (Table 9.1a).

**Table 9.1a: Patient Characteristics, ACO vs. Non-ACO (2014)**

	Medicare FFS, non-ACO	All Medicare Shared Savings Program ACOs
<b>Total Beneficiaries</b>	27,574,226	5,322,292
<b>Female</b>	45.2%	42.7%
<b>Mean Age</b>	70.5	71.5
<b>Dually-enrolled</b>	21.6%	17.2%
<b>Originally qualified for Medicare based on a disability</b>	26.2%	21.4%
<b>White</b>	78.7%	78.4%
<b>Rural (Non-MSA)</b>	25.1%	15.2%

Within ACOs, beneficiaries with social risk factors were more likely to have other social risk factors, as well as to have higher levels of medical risk as measured by comorbidities (Table 9.1b):

**Table 9.1b: Patient Characteristics, Beneficiary Social Risk Groups within ACOs (2014)**

	Dually-enrolled	Disability	Black	Hispanic	Low-ZCTA Income	Rural
<b>Total Beneficiaries</b>	704,209	785,582	860,255	717,860	667,322	1,085,654
<b>Female</b>	42.7%	43.3%	42.1%	42.4%	42.8%	43.4%
<b>Mean Age</b>	69.7	68.6	70.0	70.9	70.3	70.8
<b>Dually-enrolled</b>	40.7%	29.6%	22.8%	29.7%	24.1%	20.7%
<b>Disability</b>	31.2%	34.3%	27.3%	24.1%	28.9%	25.6%
<b>White</b>	61.9%	72.2%	64.1%	55.8%	74.5%	86.1%
<b>Black</b>	11.5%	12.5%	23.4%	10.5%	10.4%	5.6%
<b>Hispanic</b>	5.2%	5.2%	5.2%	5.2%	5.2%	5.2%
<b>Other Race</b>	13.4%	7.1%	7.4%	12.2%	5.4%	5.8%
<b>Rural (Non-MSA)</b>	22.2%	22.1%	12.2%	5.8%	32.7%	48.7%
HCC=hierarchical condition category; MSA=metropolitan statistical area; ZCTA=ZIP code tabulation area						

**Table 9.1b continued: Patient Characteristics, Beneficiary Social Risk Groups within ACOs (2014)**

	Dually-enrolled	Disability	Black	Hispanic	Low-ZCTA Income	Rural
<b>ZCTA Level Income</b>						
<b>Unknown</b>	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%
<b>0 - &lt;20k</b>	24.8%	26.0%	17.8%	19.7%	36.0%	17.4%
<b>20 - &lt;25k</b>	27.4%	29.7%	23.7%	22.6%	39.7%	33.2%
<b>25k - &lt;30k</b>	20.7%	21.9%	19.1%	16.9%	15.6%	27.3%
<b>30k - &lt;40k</b>	20.0%	18.1%	26.0%	24.2%	7.8%	18.6%
<b>≥40k</b>	7.0%	4.3%	13.3%	16.4%	0.8%	3.5%
<b>HCC Comorbidity (# of HCCs in 2014)</b>						
<b>0 HCCs</b>	32.4%	33.7%	33.3%	32.2%	33.2%	35.9%
<b>1 HCC</b>	23.3%	23.8%	23.8%	22.7%	23.9%	24.7%
<b>2 HCCs</b>	16.3%	16.2%	16.1%	16.2%	16.2%	15.7%
<b>3 - 5 HCCs</b>	20.6%	19.7%	19.8%	21.2%	20.1%	18.1%
<b>6 - 9 HCCs</b>	6.1%	5.6%	5.8%	6.3%	5.6%	4.8%
<b>10+ HCCs</b>	1.3%	1.1%	1.2%	1.4%	1.0%	0.8%
HCC=hierarchical condition category; ZCTA=ZIP code tabulation area						

**B. Provider Characteristics**

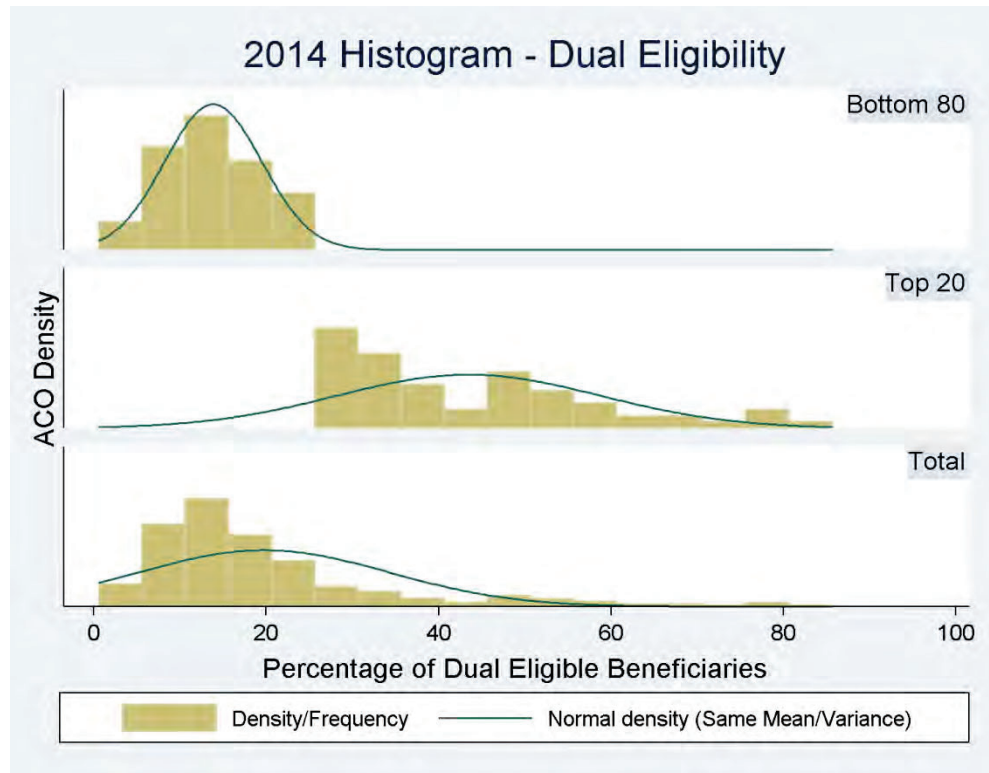
There were 333 ACOs participating in Medicare Shared Savings Program in performance year 2014. Only three of these ACOs participated in Medicare Shared Savings Program Track 2, with the remainder in Track 1 (up-side only risk). Of these 333, 111 started in Medicare Shared Savings Program in 2012, 103 started in 2013, and 119 in 2014. Overall, the average number of beneficiaries served by each of the ACOs was 15,983. Close to half of these ACOs (45%) served fewer than 10,000 beneficiaries and only about one in five had more than 20,000 enrollees. Over half of participating ACOs (57%) had a participating hospital (Table 9.2).

ACOs in the highest quintile of each group of beneficiaries with social risk factors tended to be smaller and to have patient populations that had higher levels of many social risk factors:

**Table 9.2: Medicare Shared Savings Program ACO Characteristics, by Proportion of Socially At-Risk Beneficiaries (2014)**

	All ACOs*	High-Dual	High-Disabled	High-Black	High-Hispanic	Low-ZCTA-Income	High-Rural
<b>Number of ACOs</b>	333	66	66	66	66	66	66
<b>Average Beneficiaries</b>	15,983	10,670	11,903	13,034	10,877	10,111	16,449
<b>Size (enrollees)</b>							
Small (0-10,000)	45%	67%	55%	56%	71%	73%	47%
Med (10,001-20,000)	33%	24%	30%	29%	18%	20%	27%
Large (20,000+)	22%	9%	15%	15%	11%	8%	26%
<b>Size (providers)</b>							
Small (0-99)	33%	38%	26%	38%	44%	58%	35%
Medium (100-500)	38%	33%	32%	29%	33%	27%	36%
Large (501+)	30%	29%	42%	33%	23%	15%	29%
<b>Hospital in Network</b>	57%	68%	76%	52%	55%	52%	71%
<b>Patients Served</b>							
% Dually-enrolled	17%	41%	30%	23%	30%	24%	21%
% Qualified for Medicare based on a disability	21%	31%	34%	27%	24%	29%	26%
% Black	8%	11%	13%	23%	11%	10%	6%
% Hispanic	5%	13%	8%	5%	22%	10%	2%
% Low Income ZCTA	12%	25%	26%	18%	20%	36%	17%
% Rural	15%	22%	22%	12%	6%	33%	49%
ZCTA=ZIP code tabulation area							
*=refers to all ACOs in the Medicare Shared Savings Program only.							

While overall 17% of ACO beneficiaries were dually enrolled, the average ACO in the “high-dual ACO” group, defined as the top quintile of the percent of dually-enrolled beneficiaries in the ACO, had 41% dually-enrolled beneficiaries. Beneficiaries in high-dual ACOs were also more likely to be Black, Hispanic, rural, and disabled. These beneficiaries were also relatively poorer in terms of ZCTA income. Figure 9.2 shows the distribution of dually-enrolled beneficiaries in ACOs overall (bottom panel), for ACOs in the top quintile of dually-enrolled beneficiaries (middle panel, “Top 20”), and for ACOs in the bottom 80% of dual rates (top panel, “Bottom 80”).

**Figure 9.2: Distribution of Dually-enrolled Eligible Beneficiaries across ACOs (2014)**

### III. Beneficiary Social Risk Factors and Performance in the Medicare Shared Savings Program

Of the 33 measures used to determine an ACO's quality score in the Medicare Shared Savings Program, only three are based on claims data and thus can be analyzed to determine whether there is any underlying relationship with social risk at the patient level. The three measures are (1) Risk Standardized All-Condition Readmissions, (2) Admissions for Chronic Obstructive Pulmonary Disease (COPD) or Asthma in Older Adults, and (3) Admissions for Heart Failure (HF).

#### A. All-Condition Readmission

This readmission measure captures the risk-adjusted percentage of assigned beneficiaries who were hospitalized and readmitted to a hospital within 30 days of discharge from the index-hospital admission.

Analyses showed that dual and disabled beneficiaries were more likely to be readmitted to the hospital, even after controlling for differences in patient risk and practice selection. As shown in Table 9.3, 16.3% of dually enrolled beneficiaries were readmitted to the hospital in 2014, compared to 12.5% of other beneficiaries. Similarly, 15.8% of disabled beneficiaries were readmitted to the hospital, compared to 12.7% of other beneficiaries. Black beneficiaries and Hispanic beneficiaries were also more likely to have a readmission.

This difference might be explained by a variety of factors, including differences in patient factors (e.g., co-morbidities, family/caregiver support), and ACO/provider factors (e.g., dually-enrolled beneficiaries may disproportionately be seen by poor quality ACOs). Compared to non-dually-enrolled beneficiaries in the same ACO, however, dually-enrolled beneficiaries still had 36% greater odds of being re-admitted after an admission. After risk adjustment (for age, gender, and medical comorbidities), dually-enrolled beneficiaries still had an 18% greater chance of readmission, Black beneficiaries had a 12% greater chance of readmission, and beneficiaries with disabilities had a 19% greater chance of readmission (Table 9.3).

**Table 9.3: Beneficiary Social Risk Factors and Performance on Medicare Shared Savings Program Readmission Measure (2014)**

Social Risk Factor	Without Risk-Adjustment			Risk-Adjusted Within-ACO Odds Ratio
	Raw Rate		Within-ACO Odds Ratio	
	High Social Risk	Other (Ref.)		
Dual Enrollment	16.3%	12.5%	1.36	1.18
Disability	15.8%	12.7%	1.29	1.19
Black	15.9%	12.9%	1.25	1.12
Hispanic	14.3%	13.1%	1.07	1.03
Low-ZCTA-income	13.2%	12.6%	1.08	1.01
Patient Rurality	12.7%	13.3%	0.98	0.98
ZCTA=ZIP code tabulation area. All Bolded odds ratios are significant at p<0.001. Models are random effects models with risk adjustment using HCCs as specified by CMS. Results were qualitatively unchanged when including a term for the proportion of beneficiaries with the social risk factor of interest in the model to address residual confounding by ACO (also see Table 9.7).				

## B. Ambulatory Care Sensitive Conditions

Ambulatory care sensitive condition (ACSC) measures, also known as prevention quality indicators (PQIs), are measures developed by the Agency for Healthcare Research and Quality (AHRQ) that track potentially preventable admissions for conditions that ideally could be treated on an outpatient basis. The PQI score is a ratio of observed admissions to expected admissions. The Medicare Shared Savings Program used two ACSC measures in the Program Years examined for this report, namely COPD and heart failure. For these measures, the numerator is observed admissions for COPD or asthma in beneficiaries over 40 or heart failure in beneficiaries over 18 and the denominator is expected admissions based on prevalence of disease (any claim for COPD or HF), age, and gender; there is no adjustment for medical comorbidities in either measure (note: the 2017 PFS replaced these measures with a single ACSC composite that does include clinical risk adjustment; measure specifications and 2016 data were not available for simulation of that future measure at the time of the writing of this report).

As in the case of readmissions for these conditions, beneficiaries with social risk factors generally did worse in terms of preventable admissions. Within the same ACO, dually-enrolled beneficiaries had 39%

greater odds of being admitted for COPD, though slightly lower odds of being admitted for HF. Similarly, beneficiaries who were Black or Hispanic, beneficiaries with disabilities and beneficiaries from low-income ZCTAs had greater odds of being admitted for COPD than other beneficiaries, even after risk-adjustment. Black beneficiaries also had greater odds of being admitted for HF, even after risk-adjustment (Table 9.4).

**Table 9.4: Beneficiary Social Risk Factors and Performance on Medicare Shared Savings Program PQI Measures (2014)**

COPD				
	Without Risk-Adjustment			Risk-Adjusted Within-ACO Odds Ratio
	Raw Rate		Within-ACO Odds Ratio	
	High Social Risk	Other (Ref.)		
Dual Enrollment	1.2%	0.8%	1.39	1.16
Disability	1.1%	0.8%	1.35	1.12
Black	1.3%	0.9%	1.38	1.42
Hispanic	1.1%	0.9%	1.21	1.12
Low-ZCTA-income	0.9%	0.7%	1.39	1.25
Patient Rurality	1.0%	0.9%	1.07	1.07
HEART FAILURE				
	Without Risk-Adjustment			Risk-Adjusted Within-ACO Odds Ratio
	Raw Rate		Within-ACO Odds Ratio	
	High Social Risk	Other (Ref.)		
Dual Enrollment	2.0%	2.2%	0.90	0.86
Disability	2.2%	2.1%	1.01	0.98
Black	2.5%	2.1%	1.18	1.34
Hispanic	2.3%	2.1%	1.15	1.05
Low-ZCTA-income	2.1%	1.8%	1.14	1.04
Patient Rurality	2.2%	2.1%	1.02	0.99
Bolded odds ratios are significant at p<0.001. ZCTA=ZIP code tabulation area; PQI=prevention quality indicators. Random effects models were used for all odds ratios presented. Risk adjustment for the PQIs currently only includes age and gender category. Results were qualitatively unchanged when including a term for the proportion of beneficiaries with the social risk factor of interest in the model to address residual confounding by ACO (also see Table 9.7).				

#### IV. ACO Social Risk Composition and Performance in the Medicare Shared Savings Program

To quantify how much of an ACO's performance was related to the ACO's overall performance versus the beneficiaries it served, two additional analyses were performed. First, beneficiaries seen at ACOs that served a high proportion of beneficiaries with social risk factors (dually-enrolled, disability, Black,

Hispanic, rural) were compared to beneficiaries in other ACOs. Beneficiaries in high-dual ACOs had a readmission rate of 14% versus 13.1% among beneficiaries in non-high-dual ACOs. However, these ACO-level effects largely disappeared once patient clinical risk was considered, suggesting that patient-level factors were the larger contributor to readmission rates (Table 9.5).

**Table 9.5: ACO Social Risk Factors and Performance on Medicare Shared Savings Program Readmission Measure (2014)**

	Without Risk-Adjustment			Risk-Adjusted Odds Ratio
	Beneficiaries in ACOs serving beneficiaries with social risk factors	Beneficiaries in Other ACOs	Odds Ratio	
High-Dual ACO	14.0%	13.1%	<b>1.13</b>	1.06
High-Disabled ACO	13.8%	13.1%	<b>1.09</b>	1.06
High-Black ACO	13.6%	13.1%	1.08	1.03
High-Hispanic ACO	14.1%	13.1%	<b>1.09</b>	1.04
Low-ZCTA-Income ACO	13.1%	13.2%	1.00	0.99
Rural ACO	12.6%	13.3%	0.96	0.97
Random effects models were used for all odds ratios presented. Bolded odds ratios significant at p<0.001.				

Examining the PQIs, beneficiaries in high-dual, high-disabled, and high-Black ACOs were more likely to have preventable admissions for COPD, even when clinical risk was considered. Beneficiaries in high-Black ACOs were also more likely to have a preventable admission for HF (Table 9.6).

**Table 9.6: ACO Social Risk Factors and Performance on Medicare Shared Savings Program PQI Measures (2014)**

COPD				
COPD	Without Risk-Adjustment			Risk-Adjusted Odds Ratio
	Beneficiaries in ACOs serving beneficiaries with social risk factors	Beneficiaries in Other ACOs	Odds Ratio	
High-Dual ACO	1.1%	0.9%	<b>1.22</b>	<b>1.19</b>
High-Disabled ACO	1.0%	0.9%	<b>1.19</b>	<b>1.14</b>
High-Black ACO	1.0%	0.9%	<b>1.24</b>	<b>1.24</b>
High-Hispanic ACO	1.0%	0.9%	1.04	1.09
Low-ZCTA-Income ACO	1.0%	0.9%	1.05	1.04
Rural ACO	0.9%	0.9%	1.05	1.01
ZCTA=ZIP code tabulation area. Random effects models were used for all odds ratios (ORs) presented. Bolded odds ratios are significant at p<0.001.				



**Table 9.6 continued: ACO Social Risk Factors and Performance on Medicare Shared Savings Program PQI Measures (2014)**

HEART FAILURE				
Heart Failure	Without Risk-Adjustment			Risk-Adjusted Odds Ratio
	Beneficiaries in ACOs serving beneficiaries with social risk factors	Beneficiaries in Other ACOs	Odds Ratio	
High-Dual ACO	2.1%	2.1%	1.00	0.99
High-Disabled ACO	2.2%	2.1%	1.06	1.06
High-Black ACO	2.3%	2.1%	<b>1.15</b>	<b>1.16</b>
High-Hispanic ACO	2.0%	2.1%	0.91	0.91
Low-ZCTA-Income ACO	2.2%	2.1%	1.03	1.01
Rural ACO	2.2%	2.1%	1.05	1.07
ZCTA=ZIP code tabulation area. Random effects models were used for all odds ratios (ORs) presented. Bolded odds ratios are significant at p<0.001.				

In a second analysis, both beneficiary and ACO factors were included in the same model, as shown in Table 9.7. In most cases, ACO-level factors were not significant when estimated with beneficiary-level factors, suggesting that beneficiary factors were the primary contributor to readmissions and preventable admission rates. An exception to this pattern is the case of admissions for COPD. Even after controlling for beneficiary factors, beneficiaries in high-dual ACOs had 14% greater odds, and beneficiaries in high-Black ACOs had 16% greater odds of admission for COPD than beneficiaries in other ACOs. This finding suggests that both ACO-level factors and beneficiary -level factors play a role in preventable admissions for COPD, though beneficiary factors dominate.

**Table 9.7: Beneficiary vs. ACO Factors in Readmissions and Preventable Admissions, 2014**

Beneficiary or ACO Characteristic	Odds from Risk-Adjusted Random Effects Models					
	All-Cause Readmissions		Admitted for COPD		Admitted for HF	
	<i>Beneficiary</i>	<i>ACO</i>	<i>Beneficiary</i>	<i>ACO</i>	<i>Beneficiary</i>	<i>ACO</i>
Dual Enrollment	<b>1.18</b>	1.00	<b>1.16</b>	<b>1.14</b>	<b>0.86</b>	1.04
Disabled	<b>1.19</b>	1.05	<b>1.12</b>	1.14	0.98	1.06
Black	<b>1.12</b>	1.00	<b>1.41</b>	<b>1.16</b>	<b>1.33</b>	1.08
Hispanic	1.02	1.04	<b>1.12</b>	1.06	1.06	<b>0.90</b>
Low-ZCTA-Income	1.01	0.99	<b>1.25</b>	1.03	1.04	1.01
Rural	0.98	0.98	<b>1.07</b>	0.98	0.99	1.07
ZCTA=ZIP code tabulation area. Random effects models were used for all odds ratios (ORs) presented. Bolded odds ratios are significant at p<0.001.						

## **V. ACO Social Risk and Performance on Quality and Savings in the Medicare Shared Savings Program**

### **A. Performance on Quality Measures**

Table 9.8 shows average scores for each quality measure for ACOs overall and for ACOs disproportionately serving beneficiaries with social risk factors. Differences between the overall score and scores for each sub-group of ACO (e.g., high-dual ACOs) were calculated with median regression due to non-normality of the data and small sample sizes (see Appendix for further description of methods). Bold font indicates a statistically significant difference; note there were no measures on which ACOs disproportionately serving beneficiaries with social risk factors outperformed all other ACOs.

**Table 9.8: Median Performance in the Medicare Shared Savings Program by Measure Overall and for ACOs serving beneficiaries with social risk factors (2014)**

Measure	Description	Overall (n=333)	High- Dual ACO	High- Disabled ACO	High- Black ACO	High- Hispanic ACO	Low- ZCTA Income ACO	Rural ACO
<b>ACO-1</b>	CAHPS: Getting Timely Care, Appts, Info	80.6	<b>78.6</b>	<b>79.0</b>	79.7	<b>78.3</b>	78.8	81.2
<b>ACO-2</b>	CAHPS: Provider Communication	92.7	<b>91.8</b>	92.1	92.4	92.0	92.6	92.8
<b>ACO-3</b>	CAHPS: Patient Rating of Provider	91.9	91.2	91.4	91.4	<b>90.8</b>	91.6	91.7
<b>ACO-4</b>	CAHPS: Access to Specialists	84.1	83.3	83.9	84.1	83.5	83.9	83.4
<b>ACO-5</b>	CAHPS: Health Promotion/Education	58.2	58.9	57.9	58.2	59.3	<b>56.3</b>	<b>56.5</b>
<b>ACO-6</b>	CAHPS: Shared Decision Making	74.7	73.9	74.3	<b>73.2</b>	74.5	74.6	74.5
<b>ACO-7</b>	CAHPS: Health Status/Functional Status	71.3	<b>69.6</b>	<b>69.7</b>	70.3	<b>69.7</b>	<b>69.6</b>	71.8
<b>ACO-8</b>	Risk-Standardized All-Condition Readmission	15.1	15.4	15.2	15.3	15.3	15.3	14.9
<b>ACO-9</b>	ACSC: COPD	1.0	<b>1.3</b>	1.1	<b>1.3</b>	1.1	1.0	1.0
<b>ACO-10</b>	ACSC: Heart Failure	1.2	1.2	1.2	<b>1.3</b>	1.2	1.2	1.1
<b>ACO-11</b>	% of PCPs Receiving EHR Incentive Payment	80.5	<b>65.4</b>	75.7	77.4	<b>63.8</b>	78.2	84.4
<b>ACO-12</b>	Medication Reconciliation	91.7	93.4	91.7	90.9	93.6	92.4	91.9
<b>ACO-13</b>	Screening for Fall Risk	44.7	44.7	42.9	38.1	38.5	41.4	48.3
<b>ACO-14</b>	Flu Vaccination	58.2	53.5	55.7	52.4	<b>52.0</b>	55.1	63.6
<b>ACO-15</b>	Pneumonia Vaccination	56.8	49.2	49.5	<b>45.3</b>	<b>44.7</b>	51.4	62.2
<b>ACO-16</b>	BMI Screening and Follow-Up	67.9	69.7	65.0	67.7	72.0	72.0	69.6
<b>ACO-17</b>	Tobacco Screening and Intervention	91.3	89.2	89.2	88.1	87.5	89.5	91.3
<b>ACO-18</b>	Depression Screening and Follow-Up	36.8	37.3	32.9	30.4	30.9	36.1	47.9
<b>ACO-19</b>	Colorectal Cancer Screening	57.7	48.2	51.2	54.2	<b>47.1</b>	53.0	62.0
<b>ACO-20</b>	Breast Cancer Screening	63.0	57.2	57.8	56.7	<b>55.3</b>	59.3	66.3
<b>ACO-21</b>	Hypertension screening and follow-up	59.3	65.8	60.7	56.5	69.9	59.5	60.9
<b>ACO D</b>	Diabetes Composite	26.3	<b>20.2</b>	<b>21.2</b>	<b>20.8</b>	21.7	22.0	23.8
<b>ACO-22</b>	Diabetes: Hypertension control	71.7	<b>67.1</b>	<b>67.6</b>	<b>67.5</b>	<b>65.6</b>	70.2	71.9
<b>ACO-23</b>	Diabetes: LDL Control	58.1	<b>52.8</b>	54.5	<b>50.7</b>	53.8	55.1	56.4

## 9: The Medicare Shared Savings Program

239

<b>ACO-24</b>	Diabetes: A1c Control	71.1	68.8	<b>67.9</b>	<b>65.9</b>	68.1	67.9	71.1
<b>ACO-25</b>	Diabetes: Aspirin or Antiplatelet if Vascular Disease	80.6	<b>73.3</b>	76.2	76.4	76.9	77.5	79.2
<b>ACO-26</b>	Diabetes: Tobacco Non-Use	84.5	83.7	86.3	82.9	<b>74.7</b>	82.5	86.2
<b>ACO-27</b>	Diabetes: A1c Poor Control	17.8	<b>22.1</b>	<b>21.8</b>	<b>22.3</b>	<b>24.4</b>	19.9	15.7
<b>ACO-28</b>	Hypertension: Control	69.4	67.3	66.5	<b>64.3</b>	66.7	66.4	68.9
<b>ACO-29</b>	Ischemic Vascular Disease: Lipid Panel and LDL Control	58.8	54.9	54.5	55.3	54.9	57.5	57.7
<b>ACO-30</b>	Ischemic Vascular Disease: Aspirin/Antithrombotic	85.6	82.2	86.3	84.0	<b>79.5</b>	84.1	88.0
<b>ACO-31</b>	Heart Failure: Beta-Blocker for LVSD	87.9	85.1	88.9	88.0	88.6	87.1	87.8
<b>ACO C</b>	CAD Composite	69.4	64.8	67.8	65.1	68.6	66.7	68.3
<b>ACO-32</b>	CAD: Lipid Control	77.0	75.2	75.2	73.2	75.4	75.3	76.5
<b>ACO-33</b>	CAD: ACE or ARB for Diabetes or LVSD	77.1	75.5	77.7	76.9	79.5	76.0	77.8

Scores shown are medians.  
 ASC=ambulatory care sensitive condition; BMI=body mass index; CAD=coronary artery disease; CAHPS=Consumer Assessment of Healthcare Providers and Systems; COPD=chronic obstructive pulmonary disease; LVSD=left ventricular systolic dysfunction; LDL=low density lipoprotein.  
 Scores that are significantly different (p<0.001) from the overall median are bolded and shaded. Statistical significance was determined based on median regression due to small sample size and non-normality of the data.

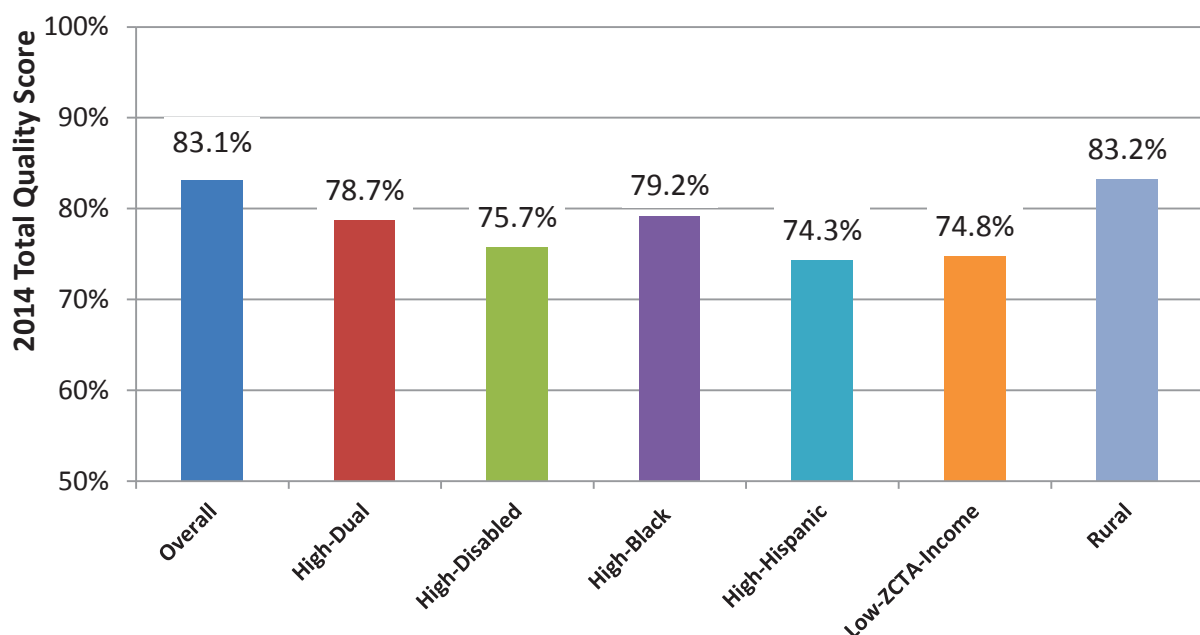
Table 9.9 summarizes quality performance by ACO social risk composition, using the same groups described above. Overall, there was no statistical difference on most scores.

**Table 9.9: Summary of Quality Performance by ACO Social Risk Composition, 2014**

Description	Measures with Worse Score	No Statistical Difference	Measures with Better Score
High-Dual ACO	10	23	0
High-Disabled ACO	5	28	0
High-Black ACO	9	24	0
High-Hispanic ACO	12	21	0
Low-ZCTA-Income ACO	2	31	0
Rural ACO	1	32	0

As described earlier, each ACO received a score for each measure and each domain (patient/caregiver experience, care coordination/patient safety, preventive health, and at-risk populations). Domain scores were then averaged to form an overall quality score on a scale of 0-100%. Figure 9.3 shows average 2014 quality scores for ACOs overall and ACOs that serve a high proportion of patients with social risks. In general, ACOs serving beneficiaries with social risk factors had lower quality scores than ACOs overall; these differences were small but statistically significant in the case of high-disabled ACOs (vs. non-high-disabled ACOs, p-value=0.002), high-Hispanic ACOs (vs. non-high-Hispanic ACOs, p-value<0.001), and low-ZCTA income ACOs (vs. non-low-ZCTA-income ACOs, p-value<0.001).

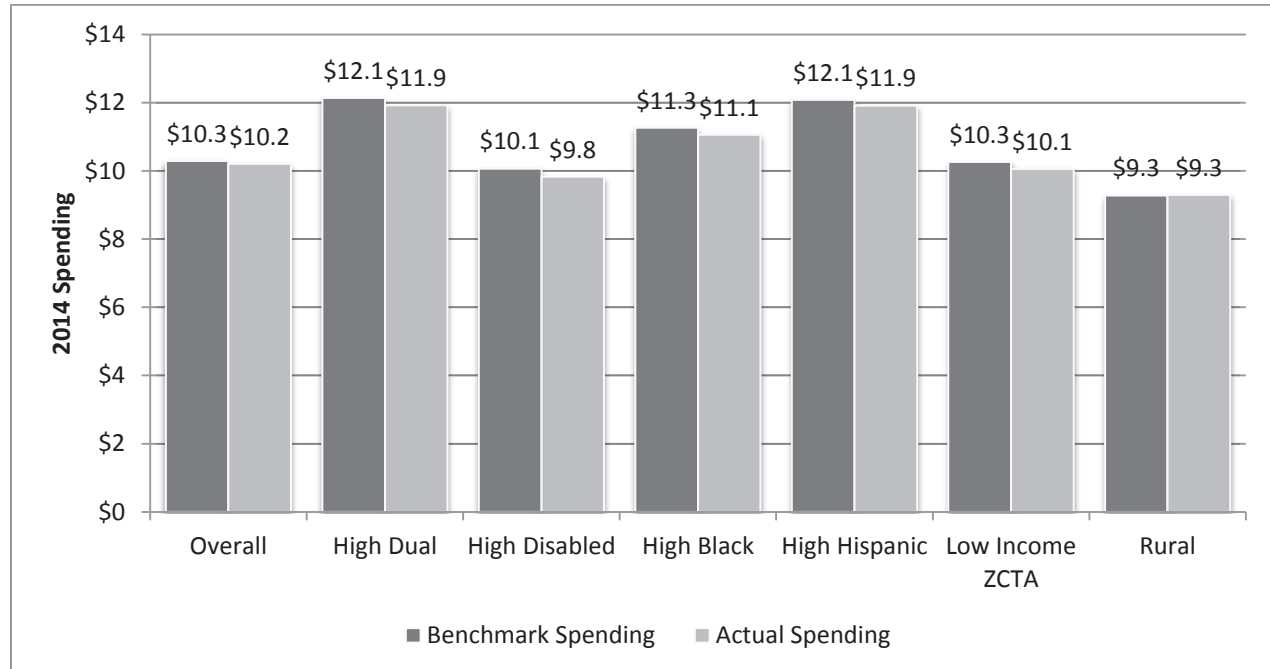
**Figure 9.3: ACO Quality Scores by ACO Social Risk Composition, 2014**



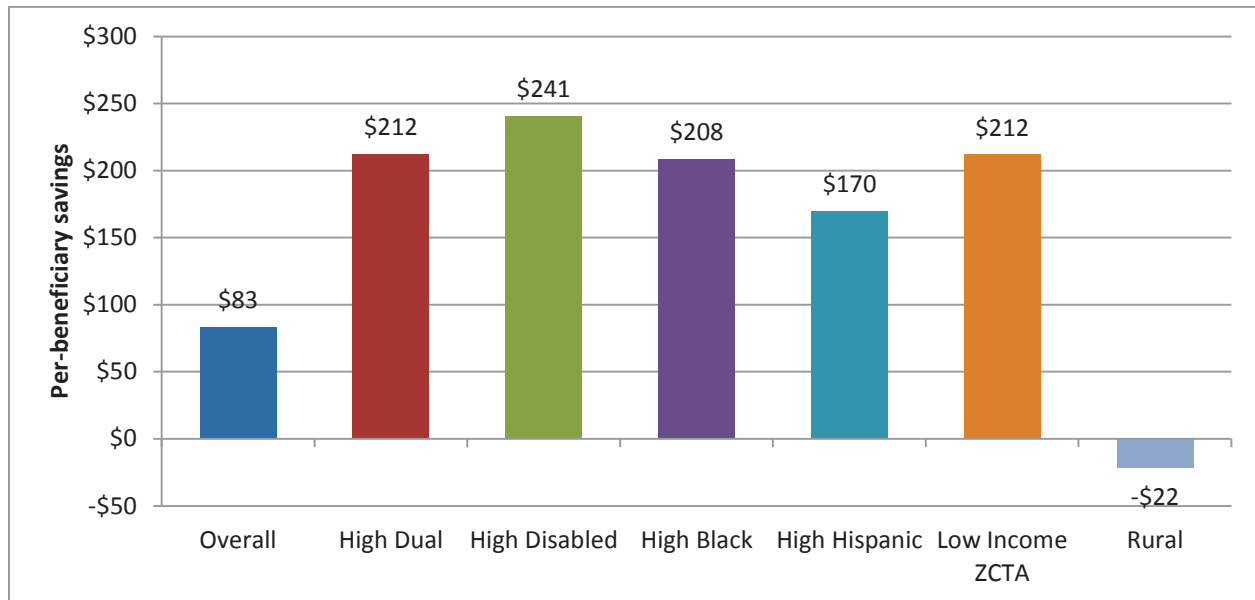
**B. Performance on Spending and Savings**

Figure 9.4 shows benchmark and actual spending in 2014 for ACOs overall and for each sub-group of ACOs serving beneficiaries with social risk factors. ACOs serving beneficiaries with social risk factors, in general, had higher benchmarks than average. For example, the benchmark for high-dual ACOs was \$12,100 compared to \$10,300 across all ACOs. Benchmarks for high-Black and high-Hispanic ACOs were similarly higher than average.

**Figure 9.4: Per-Beneficiary Benchmark vs. Actual Spending by ACO Social Risk, 2014 (thousands of \$)**



ACOs serving beneficiaries with social risk factors also achieved greater savings than the average ACO (Figure 9.5). Figure 9.5 shows per-beneficiary savings for ACOs overall and by ACO social risk composition in 2014 (per-beneficiary savings were calculated based on the number of beneficiaries attributed to each ACO in 2014; note that this is equivalent to subtracting the actual from the benchmark in the figure above). On average, ACOs saved \$83/beneficiary in year 2. High-dual ACOs saved substantially more, at \$398/beneficiary, and other ACOs serving beneficiaries with social risk factors similarly saved more per beneficiary than ACOs overall. The exception was rural ACOs, in which the average savings was only \$48.

**Figure 9.5: Per-Beneficiary Savings by ACO Social Risk Composition, 2014**

The next step after determining savings was determining whether the savings exceeded the MSR, and if so, determining the actual amount of the shared savings based on multiplying the potential savings by the quality score. Of the 333 ACOs participating in Medicare Shared Savings Program in 2014, 181 (54%) had actual expenditures under their benchmark, but only 92 (28%) had savings that met or exceeded their MSR (Table 9.10). Of these 92, 86 (26%) shared in these savings, meaning that they met the minimum quality performance standard. With the exception of rural-serving ACOs, a greater proportion of ACOs serving beneficiaries with social risk factors saved money than did ACOs overall. For example, 62% of high-dual ACOs had total expenditures less than benchmark, compared to 54% of ACOs overall. Further, a greater percentage of high-dual, high-Hispanic, high-Black, and high-disabled ACOs, as well as those serving a population living in low-income areas, earned shared savings. Rural ACOs were less likely to earn and share in savings (Table 9.10).

**Table 9.10: ACO Expenditures and Savings by ACO Social Risk Composition, 2014**

	Overall	High-Dual ACOs	High-Disabled ACOs	High-Black ACOs	High-Hispanic ACOs	Low-ZCTA-Income ACOs	Rural ACOs
<b>ACOs with Any Savings (total expenditures &lt; benchmark)</b>	54.4%	62.1%	65.2%	66.7%	60.6%	62.1%	40.9%
<b>ACOs with Savings &gt; Minimum Savings Rate</b>	27.6%	33.3%	43.9%	31.8%	37.9%	39.4%	18.2%
<b>ACOs that Shared in Savings</b>	25.8%	30.3%	37.9%	27.3%	34.8%	34.8%	16.7%



These findings show that ACOs serving a high proportion of beneficiaries with social risk factors were more likely to succeed in achieving savings and sharing in those savings despite having lower quality scores, with the exception of ACOs with a high proportion of rural beneficiaries.

## VI. Policy Options for the Medicare Shared Savings Program

### A. Introduction

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 9.11:

**Table 9.11: Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How policymakers weight these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

Four policy options were considered for modifying the current Medicare Shared Savings Program: determining that no changes are necessary (status quo), modifying or adding risk adjustment, rewarding improvement, and providing bonuses to ACOs that serve a socially at-risk population and perform well in such a population. These options are displayed in Table 9.12, followed by a more detailed explanation of each option with a simulation of the proposed policy's potential impact. For other programs discussed in this report, stratification was another policy option considered. In the Medicare Shared Savings Program, however, there is little rationale for stratification given that there was little difference between the performance of high social risk and other ACOs and thus less reason to control for unmeasurable differences between these types of ACOs that may drive performance, as this risks adjusting for factors broader than the social risk factor and/or under providers' control. Further analyses once the Medicare Shared Savings Program is in later years are also recommended.

The remainder of this section provides a more detailed explanation of each option, as well as results of policy simulations of the proposed policy's potential impact. In addition, Section 5 below presents discussion and simulation of the effects of regional benchmarking as outlined in the June 6, 2016 Final Rule.

Table 9.12: Summary of Medicare Shared Savings Program Policy Options

Option	Description	Pros	Cons
<b>1. Status Quo</b>	Maintain current (2016) Medicare Shared Savings Program policy.	Costs are already risk-adjusted, and there are only small differences in quality between ACOs. High-social-risk ACOs had higher savings. Program is new and evolving. May avoid reducing incentives to improve quality.	Newly entering high risk ACOs may have populations that are more challenging to manage, leading to more differentiation among these ACOs relative to the existing overall ACO population.
<b>2. Adjust ACSCs for medical comorbidities; adjust ACSCs and readmissions for social risk</b>	Add HCC risk score to the ACSC model (note: a new ACSC measure that does include risk adjustment was finalized in the 2017 PFS; measure specifications and data were not available to simulate this future measure at the time this report was written). Add social risk factors to the formulas for calculating the ACSCs and readmission measures.	May protect ACOs from unfair financial stress, may reduce disincentives to caring for high-risk populations, may support delivery system reform.	Risks adjusting for differences in performance related to bias or discrimination, or masking poor quality.
<b>3. Reward Improvement (note: part of current Medicare Shared Savings Program)</b>	Reward ACOs that improve as well as those that achieve high performance.	May encourage reductions in disparities, may support delivery system reform.	Could negatively impact transparency.
<b>4. Payment adjustment for achievement or improvement specifically for beneficiaries with social risk factors</b>	Provide opportunity for additional points on quality score for high performance in high risk ACOs.	May reduce disincentives to caring for high-risk populations, may encourage reductions in disparities.	Risks adjusting for factors under providers' control.
<b>5. Regional Benchmarking (Final Rule)<sup>3</sup></b>	Update benchmarks to reflect an ACO's performance relative to other providers in the same regional market.	Improve the program's incentives for ACOs by recognizing an ACO's efficiency relative to its region.	Since high-dual and other ACOs serving beneficiaries with social risk factors are more expensive at baseline, may make it more difficult to achieve savings.

## **B. Policy Simulation Results**

### **1. Status Quo**

Results from the first two years of the Medicare Shared Savings Program suggest that the program's current method of risk-adjusting cost benchmarks has minimized differences in performance between socially at-risk and all other ACOs. Though ACOs serving beneficiaries with social risk factors had lower overall quality scores than other ACOs, these differences were small in magnitude. Further, the quality score is solely used as a multiplier to determine the amount of savings that the ACO will share, thereby mitigating the effects that quality differences have on overall program outcomes with respect to sharing in savings. High-dual and high-disabled ACOs, as well as those serving relatively large Black and Hispanic populations had higher cost benchmarks, reflecting the facts that these populations are costlier and that benchmarks are based on three years of prior spending. These ACOs were thus more likely to achieve and share in savings.

The fact that ACOs serving beneficiaries with social risk factors do not seem to be penalized in terms of program outcomes is important to note. Quality in the Medicare Shared Savings Program overall is excellent; for example, performance on the readmissions measure is better on average in the Medicare Shared Savings Program than for hospitals overall, when comparing risk-adjusted readmission rates. Performance on other quality measures is similarly high across the program. It is possible that this is due to the fact that many ACOs have been exploring social determinants of health, and recognize the value of partnering with community stakeholders to address beneficiary issues that may be prevalent in beneficiaries with social risk factors that may impact the beneficiary's ability to, for example, adhere to medication regimens or get transportation to clinic appointments. Developing individualized care plans and working in partnership with other practitioners and community services is an eligibility requirement in the program, and may underlie some of these successes.

However, while absolute performance is high in the Medicare Shared Savings Program, disparities between dually-enrolled and non-dually enrolled beneficiaries are still evident on readmissions and ambulatory care-sensitive conditions; this may underscore the fact that even in high-performing systems, such disparities are complex, and not easily or quickly eradicated. It will be critical to track the successes of these groups over time to determine which strategies are particularly promising and could potentially be shared more broadly.

It is also worth noting that the Medicare Shared Savings Program is currently a voluntary program, and many of the early participants have been large health systems, hospitals, and group practices that already have much of the necessary infrastructure in place to succeed in the program. As the ACO model becomes more widespread (e.g., through the proliferation of alternative payment models under the Medicare Access and CHIP Reauthorization Act of 2015 (MACRA)), it will be critical to monitor the performance of ACOs serving beneficiaries with social risk factors that may lack infrastructure to provide systems support for quality, or that may not yet have built community partnerships or pursued other strategies that may be critical for achieving good outcomes in beneficiaries with social risk factors.

Other upcoming and potential changes, such as the move to regional benchmarking, may have implications for ACOs serving beneficiaries with social risk factors, as discussed below. Additional policy adjustments could potentially be made as well to adjust quality scoring to more accurately reflect patient factors that are out of ACO control, thereby limiting the extent to which ACOs are held accountable for these factors.

## **2. Adjustment for Medical and Social Risk**

This policy option would involve directly adjusting quality measures for medical and social risk factors. Advantages to this policy option is that it may protect providers from unfair financial stress, may reduce disincentives to caring for high-risk populations, and may support delivery system reform and Alternative Payment Models by making the program feel more equitable to those concerned about the potential negative impact of serving beneficiaries with social risk factors on performance. However, adjustment for social risk factors in particular risks adjusting for differences in performance related to bias or discrimination, or masking poor quality. Another potential adverse effect of directly adjusting for social risk is that this adjustment might mask absolute quality differences among ACOs, making transparency efforts directed at consumers (i.e., to help them pick a provider-ACO combination) more challenging.

Adjusting for medical risk is less controversial, and is currently done in most outcome measures in the Medicare program. However, the ACSC measures are currently not adjusted for medical risk; while this may be appropriate for large groups of patients (the measure was developed for use at the geographic level – for example, states and counties), it becomes problematic when comparing provider groups that serve smaller patient populations that may vary dramatically in terms of medical risk. Risk-adjusting ACSC measures for “demographic variables and comorbidities” was finalized in the 2017 PFS (published November 2016), along with moving from condition-specific measures to a composite of the acute ACSCs. Measure specifications and data for this future measure were not available at the time this report was written, so simulations could not be performed.

Medical or social risk adjustment would be applied directly at the measure level; any alterations to measures would likely require re-entering the testing, validation, and approval process with the National Quality Forum. Adjustment would be budget-neutral, since benchmarks are re-set each year by the distribution of performance across the ACO program.

In the case of both the ACSC measures and the readmissions measure, the analyses described in this chapter showed evidence of a significant dual enrollment effect that was largely within-ACO in nature. This policy option was not simulated due to unexpected data issues. However, these adjustments would be anticipated to have small effects on savings and shared savings, since it would only impact three of the quality measures that are included in the quality score for each ACO; therefore simulations are not shown.

## **3. Rewarding Improvement**

In the initial years of the program, the Medicare Shared Savings Program rewarded achievement but not improvement, in contrast to other Medicare pay-for-performance programs such as Hospital Value-

Based Purchasing, which explicitly incorporate improvement into scoring methodology. However, CMS has recently begun rewarding ACOs for quality improvement by adding points to their domain scores. ACOs may earn up to 4 points in each domain based on quality improvement, up to the maximum available points in each domain.

Rewarding improvement meets the policy criteria of encouraging reductions in disparities, since it could potentially encourage improvement even among ACOs that are unlikely to meet the minimum quality threshold. It may also support delivery system reform and Alternative Payment Models by making the program feel more equitable to those concerned about the potential negative impact of serving beneficiaries with social risk factors on performance. One drawback is that it could negatively impact transparency, if quality scores were reported without indicating how much was the result of improvement vs. achievement.

For this simulation, domain scores were recalculated incorporating quality points for significant year-over-year quality improvement for all ACOs (using the methodology currently used by CMS to do so). Note this analysis was therefore limited to the ACOs that were in both years of program data. Adjusted quality scores were then used, in combination with the savings rate, to assess how many ACOs achieved savings and shared in savings overall and by ACO type, as shown in Table 9.13. This simulation showed that including improvement points may be associated with an increase in the percent of ACOs (high-dual and non-high-dual) that share in savings and an increase in savings per beneficiary for high-dual ACOs. As seen in analyses presented earlier in this chapter, these ACOs are already more likely to have savings, have higher savings, and share in savings, so this policy option further increased shared savings compared to other ACOs.

**Table 9.13: Simulated Effects of Rewarding Quality Improvement in the Medicare Shared Savings Program**

	Current Program		With Improvement Points	
	% of ACOs with Shared Savings	Savings per Beneficiary	% of ACOs with Shared Savings	Savings per Beneficiary
<b>All ACOs</b>	25.8%	\$313	27.6%	\$305
<b>High-Dual ACOs</b>	30.3%	\$378	33.3%	\$408
<b>All Other ACOs</b>	24.7%	\$293	26.2%	\$273

#### **4. Providing Payment Adjustments for High Performance or Improvement in Beneficiaries with Social Risk Factors**

Under this option, ACOs that either perform well or demonstrate significant improvement and serve a high proportion of beneficiaries with social risk factors would receive an additional performance bonus, which would translate to a higher shared savings rate. ACOs would only receive the payment adjustment if they met both the savings and quality standards. This policy is modeled on a payment

adjustment offered in the Physician Value-Modifier program, where practices receive an additional bonus if they perform well and treat beneficiaries that have relatively high medical risk.

The strengths of this option are that it may reduce disincentives to caring for high-risk populations (and in fact may create incentives to care for these groups), and may encourage reductions in disparities by putting a focus on beneficiaries with social risk factors. The drawback is that it may reward providers for poor performance due to factors under their control, though the provision that only ACOs that meet the quality standard receive an adjustment protects against this to some degree. This option would likely not be budget-neutral unless coupled with another change to the program.

Under the first component of this simulation, ACOs that were eligible for shared savings (i.e., those meeting the minimum savings rate and quality threshold) and that had a high proportion of beneficiaries with social risk factors got an additional bonus on their quality score, which had the effect of raising the percent of their savings that they kept (shared savings). For an ACO eligible for shared savings and with a dual rate in the top quintile, the ACO's quality score (and thus shared savings rate) was multiplied by  $1 + (\% \text{dual}/2)$ , so, for example, an ACO with 80% dually-enrolled beneficiaries would have its shared savings rate multiplied by  $1 + (0.8/2)$ , or 1.4. As shown in Table 9.14, under this special payment adjustment option, high-dual ACOs would receive close to an additional \$100 in shared savings per beneficiary, on average, compared to the current program.

**Table 9.14: Simulated Effects of Bonuses for High-Performing ACOs serving beneficiaries with social risk factors in the Medicare Shared Savings Program**

	Current Program		With Performance Bonus	
	% of ACOs with Shared Savings	Savings per Beneficiary	% of ACOs with Shared Savings	Savings per Beneficiary
All ACOs	25.8%	\$313	25.8%	\$327
High-Dual ACOs	30.3%	\$378	30.3%	\$460
All Other ACOs	24.7%	\$293	24.7%	\$287

The second way in which this policy was simulated was by providing an additional performance bonus for improvement based on the proportion of dually-enrolled individuals in an ACO. The same methodology was followed as in the “improvement” option above (Table 9.13), but ACOs that were in the highest quintile of proportion dual received an additional point bonus consisting of their improvement points multiplied by their percent dually-enrolled (so an ACO with 75% dually-enrolled beneficiaries receiving 2 improvement points would receive an additional  $2 \times 0.75 = 1.5$  improvement point bonus).

This simulation demonstrated slightly higher rates of achieving savings for all ACOs, and significantly higher savings per beneficiary for high-dual ACOs.



**Table 9.15: Simulated Effects of Bonuses for High-Improving ACOs serving beneficiaries with social risk factors in the Medicare Shared Savings Program**

	Current Program		With Scaled Improvement Bonus	
	% of ACOs with Shared Savings	Savings per Beneficiary	% of ACOs with Shared Savings	Savings per Beneficiary
<b>All ACOs</b>	25.8%	\$313	27.6%	\$309
<b>High-Dual ACOs</b>	30.3%	\$378	33.3%	\$421
<b>All Other ACOs</b>	24.7%	\$293	26.2%	\$273

### 5. Medicare Shared Savings Program-Specific Simulation: Regional Cost Benchmarking

In June 2016, a Final Rule for the Medicare Shared Savings Program was issued in the Federal Register (81 Fed. Reg. 37950). This rule outlined changes to the methodology for rebasing and updating ACO cost benchmarks for ACOs entering a second or subsequent agreement period to allow for integration of regional factors, thus making the ACO cost target less dependent on historical expenditures and more reflective of regional FFS spending. These adjustments would recognize that costs of care and trends in cost differ substantially by region; incorporating a regional factor could particularly improve incentives for lower-cost ACOs located in areas with high underlying cost growth.

Per the rule, each ACO's benchmark will reflect both its own historical spending and spending in the ACO's region. A phased approach will be used to transition to a higher weight on the regional adjustment, including separate phase-in periods for ACOs with lower vs. higher-spending ACOs. For ACOs determined to have spending higher than their region, a lower weight will be placed on the regional adjustment in order to give these ACOs time to adjust to the new methodology. In the first agreement period to which the regional adjustment is applied, the weight placed on the regional difference will be 25% for higher spending ACOs and 35% for other ACOs. In the second agreement period in which the adjustment is applied, the weights will be 50% and 70% for higher- and lower-spending ACOs, respectively. Finally, in the third agreement period where the adjustment is applied, a weight of 70% will be placed on the regional adjustment for all ACOs. Additionally, a regional expenditure growth rate would be used in place of the national expenditure trend when trending forward benchmark years, and in place of the national growth amount for updating the ACO's historical benchmark in each performance year.

The simulated effects of rebased ACO benchmarks incorporating regional spending and trends under three scenarios are shown in Table 9.16 and represented graphically in Figure 9.6, with the current scenario (0% regional benchmark) shown first, then the 35%/25% regional benchmark, and then the 50%/70% regional benchmark next. As intended, incorporating regional spending had an overall positive impact on the number of ACOs that saved, met the minimum savings rate, and were eligible for shared savings. Under the current benchmarking methodology, 26% of ACOs were eligible for shared savings in



2014; under the regionally adjusted benchmark, this rate increased to 53% in the first agreement period (35%/25% weight) and 70% with the 50%/70% weight applied.

Regional benchmarking, however, widened the gap in the percent achieving shared savings between high-dual and other ACOs, as high-dual ACOs had higher benchmarks at baseline, though high-dual ACOs still had higher savings than other ACOs under all scenarios. This was not unexpected, given that high-dual ACOs have higher benchmarks based on their own historical spending, which may reflect the fact that dually-enrolled beneficiaries tend to have significantly higher resource use (see analyses on the MPSB measure in the HVBP chapter for further information).

**Table 9.16: Simulated Effects of Rebased ACO Benchmarks Incorporating Regional Spending and Trends**

	Current Program		35%/25% Regional		70%/50% Regional	
	% of ACOs with Shared Savings	Savings per Beneficiary	% of ACOs with Shared Savings	Savings per Beneficiary	% of ACOs with Shared Savings	Savings per Beneficiary
<b>All ACOs</b>	25.8%	\$313	53.2%	\$393	69.4%	\$604
<b>High-dual ACOs</b>	30.3%	\$378	40.9%	\$431	53.0%	\$724
<b>All Other ACOs</b>	24.7%	\$293	56.2%	\$386	73.4%	\$582

These changes can also be seen graphically, as shown in Figure 9.6:

**Figure 9.6: Percent of ACOs Achieving Shared Savings under Regional Benchmarking**

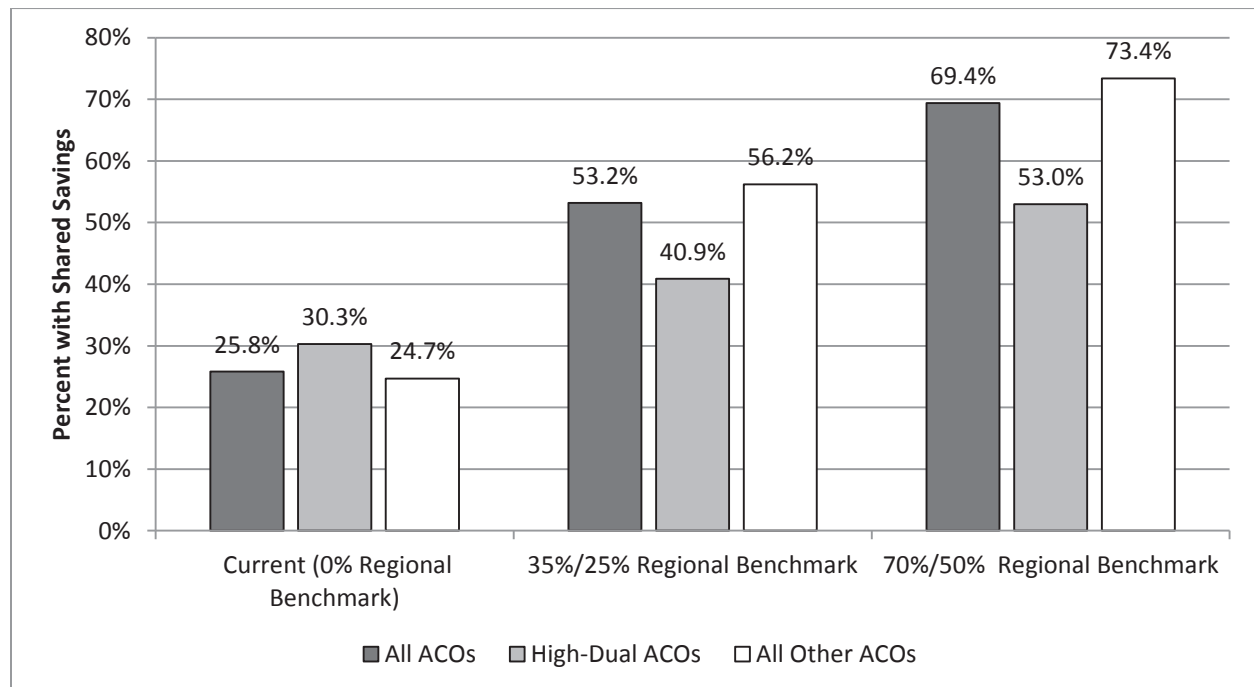


Figure 9.6 demonstrates that both high-dual and non-high-dual ACOs are more likely to achieve shared savings under regional benchmarking than under the current program. However, moving to even a 35%/25% regional benchmark blend would create a scenario in which high-dual ACOs become less likely to do so than their non-high-dual counterparts.

Note that the analyses presented here are simulations based on the methodology described in the 2016 Final Rule and data made available by CMS; actual ACO performance could vary significantly from simulations. The actual effects of these changes should be re-analyzed in the future once programmatic data are available to assess the implications of changes for beneficiaries and providers in ACOs serving high social risk beneficiaries.

### C. Summary of Policy Options

Each of the policy options presented has strengths and weaknesses, and should be considered in the context of the policy goals outlined in the introductory chapters and the potential for positive impact. Table 9.17 presents the proportion of ACOs with shared savings and summarizes the amount of savings per beneficiary under each policy option. Overall, policy changes to the quality scoring have relatively little effect, though in most cases there is a small increase in the percent of ACOs with shared savings and in all cases there is an increase in savings per beneficiary.

**Table 9.17: Summary of Policy Simulations for Medicare Shared Savings Program**

Policy Option	ACO Sample	% of ACOs with Shared Savings	Savings per Beneficiary
Status Quo	All ACOs	26%	\$313
	High-dual	30%	\$378
	All other	25%	\$293
Rewarding Quality Improvement	All ACOs	28%	\$305
	High-dual	33%	\$408
	All other	26%	\$273
Providing Payment Adjustments for High Performance in Beneficiaries with Social Risk Factors	All ACOs	26%	\$327
	High-dual	30%	\$460
	All other	25%	\$287
Providing Payment Adjustments for High Improvement in Beneficiaries with Social Risk Factors	All ACOs	28%	\$309
	High-dual	33%	\$421
	All other	26%	\$273
35%/25% Regional Benchmarking	All ACOs	53%	\$393
	High-dual	41%	\$431
	All other	56%	\$386
79%/50% Regional Benchmarking	All ACOs	69%	\$604
	High-dual	53%	\$724
	All other	73%	\$582

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying Relationships

- Dually-enrolled beneficiaries, beneficiaries with disabilities, and Black beneficiaries were more likely to be readmitted to the hospital, even after controlling for differences in patient risk and practice selection. These disparities were very similar to those found in the HRRP analyses (Chapter 5), though the raw readmission rates in ACO beneficiaries in general were lower than those seen in the overall FFS population.
- Within the same ACO, dually-enrolled, Black, and Hispanic, beneficiaries, as well as beneficiaries with disabilities and those from low-income ZCTAs, had greater odds of being admitted for COPD (but not for HF) than other beneficiaries, even after risk-adjustment.
- Beneficiary-level factors were generally a larger contributor to readmission rates than ACO-level factors. However, for PQI measures, beneficiaries in high-dual, high-disabled, and high-Black ACOs were more likely to have preventable admissions for COPD, even once patient clinical risk was taken into consideration.

#### Cost and Quality Performance among ACOs Serving Socially at-risk Populations

- ACOs disproportionately serving beneficiaries with social risk factors had statistically comparable scores on the majority of quality measures to ACOs serving an average population.
- ACOs disproportionately serving beneficiaries with social risk factors, on average, had higher cost benchmarks than ACOs overall.
- In general, ACOs disproportionately serving beneficiaries with social risk factors had greater savings and were more likely to share in savings relative to ACOs overall.
  - With the exception of ACOs with a high proportion of rural beneficiaries, a greater proportion of high-risk ACOs saved money than ACOs overall. ACOs serving beneficiaries with social risk factors, in general, achieved greater savings than the average ACO.
  - A greater percentage of high-dual, high-Hispanic, high-Black, and high-disabled ACOs, as well as those serving a relatively poorer population (as measured by ZCTA income), earned shared savings.

#### Policy Simulations

- Adding improvement points increased the proportion of ACOs that achieved shared savings, and increased the per-beneficiary savings for high-dual ACOs.
- Providing a performance score bonus for ACOs that performed well or improved significantly and served a high-dual population increased their per-beneficiary savings.
- Moving to a regional benchmark was associated with higher absolute savings for high-dual ACOs but created a disparity between these and other ACOs in terms of the likelihood of achieving shared savings.

**B. Strategies and Considerations**

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors.

**STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality measures.**

The ability to measure and track quality and outcomes for beneficiaries with social risk factors is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible.

However, currently, there are areas in which data limitations make calculating and reporting performance for at-risk subgroups difficult. For measures currently collected on only a sample of patients, such as those related to patient experience and processes of care, a strategy should be developed to capture data that would allow calculation and reporting of performance by important subgroups. This strategy would allow the Department and ACOs, as well as consumers, to better-understand who performs well for dually-enrolled beneficiaries and where there are particular areas for targeted improvement. This is consistent with the policy goal of encouraging reductions in disparities in quality and outcomes, and also promotes transparency to facilitate consumer choice.

Alternate sampling methods may be necessary for stratified reporting for measures in which sample size is currently too small. Such methods could include stratified samples rolled over multiple measurement periods, or allowing survey vendors to collect additional demographic data for the HCAHPS. Harmonizing data collection with other quality programs, including the Merit-Based Incentive Payment System or Medicare Advantage, could increase the efficiency of data collection while at the same time allowing better identification of disparities in care and outcomes.

**CONSIDERATION 2: Measure developers should develop key quality measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors.**

When adequate data are available, key quality and resource use measures stratified by social risk should be developed and considered for ACO feedback and/or public reporting, so that ACOs, policymakers, and consumers can see and address important disparities in care. While not all measures may lend themselves to reporting by subgroup, a key subset of measures should be pursued for subgroup reporting at the ACO level. Monitoring of quality performance will be especially important as new ACOs that may be more representative of the Medicare beneficiary and provider population overall enter

Medicare Shared Savings Program; early identification of disparities, if present, could be critical for informing targeted interventions as the program expands.

**CONSIDERATION 3: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the Medicare Shared Savings Program to assess and reward ACO efforts to reduce health disparities.**

Financial incentives help providers prioritize areas for particular focus, and specific measures targeting equity within existing value-based purchasing programs can therefore send a powerful signal. This may be achieved by adding a health equity measure or domain to existing programs.

A measure or domain for health equity should be added to the ACO quality metrics to provide an explicit incentive and expectation of reducing health disparities for participants in the Medicare Shared Savings Program. As there are no currently in-use health equity measures in the Medicare programs, this will require development and testing, and is not feasible in the short term. A measure of health equity may play an important role in ensuring that pay-for-performance programs help to incent, rather than disincent, improving care for beneficiaries with social risk factors. This approach would align with the policy criterion of encouraging reduction of disparities.

Specific approaches or measure(s) related to health equity have not been evaluated; however, measures could include performance on measures of disparity reduction (within an ACO, or compared to a national benchmark for the patient subgroup of interest), or include structural measures to give credit to ACOs that have undertaken quality improvement efforts targeting beneficiaries with social risk factors.

**CONSIDERATION 4: Prospectively monitor costs and savings for ACOs disproportionately serving high proportions of dually-enrolled beneficiaries as the benchmark rebasing methodology that accounts for factors based on FFS spending in the ACO's regional service area takes effect.**

Under regional benchmarking, the overall proportion of ACOs that achieved shared savings may increase; this may be a positive change for many ACOs, including many high-dual ACOs. However, under these calculations, high-dual ACOs became somewhat less likely than other ACOs to meet cost targets. It will be important to monitor the impact of these changes to the ACO benchmarking methodology if they move forward. Ensuring that high-dual ACOs are not penalized by benchmarking methods will likely increase the potential that these ACOs will remain in the program and improve their capacity to serve beneficiaries with social risk factors, consistent with the policy criteria of reducing disparities and protecting ACOs from unfair financial stress. Further, monitoring the differential effects of benchmarks will help ensure that this policy does not discourage providers from joining Alternative Payment Models.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: The measures used in the Medicare Shared Savings Program should continue to be examined to determine if adjustment for social risk factors is appropriate.**

Overall, while there were differences between patient outcomes on quality measures (e.g., readmissions and preventable admissions) among beneficiaries with social risk in ACOs and other beneficiaries, ACOs serving beneficiaries with social risk factors did not appear to be financially penalized by the Medicare Shared Savings Program. Future work could focus on understanding the reasons for the underlying differences in outcomes, and determining whether ACOs that focus on addressing social risk are more successful in improving these outcomes.

The Medicare Shared Savings Program benchmark and spending calculations, which are not a “measure” per se, but rather part of the accounting of the program, should continue to calculate spending and trends by subgroup as is currently done. Under the current program, ACOs serving socially at-risk beneficiaries were more likely to achieve savings and earn more in savings amounts than ACOs on average, due largely to the fact that they had higher cost benchmarks at baseline. The success of ACOs serving beneficiaries with social risk factors in Medicare Shared Savings Program reflects the fact that the financial impacts of the program are driven by the achievement of cost savings compared to an ACO’s own historical spending, and costs are risk-adjusted in benchmark calculations. Thus, the Medicare Shared Savings Program is a good example of the value of risk-adjusting costs for beneficiary characteristics among providers serving populations with high levels of social risk, and also of an inherent focus on improvement. This type of adjustment can help reduce disincentives to caring for beneficiaries with social risk factors.

**CONSIDERATION 2: Ambulatory care-sensitive condition admission measures should account for medical risk, as CMS has announced will be done in future program years (see 2017 PFS final rule, published November 2016).**

Risk adjusting ACSC measures for “demographic variables and comorbidities” was finalized in the 2017 PFS final rule, as CMS plans to move to an ACSC acute composite with risk adjustment included. If other ACSC measures are added to the program in the future, they should similarly be updated to include clinical risk adjustment.

**CONSIDERATION 3: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in**

**performance between providers. Attention should also be given to developing quality and outcome measures specific to the ACO setting.**

Given the significant differences seen between dual and non-dual individuals on the ACSC and readmissions measures, these metrics should be examined to determine if adding better measures of severity of illness, functional status, frailty, and/or medical complexity may explain some of the excess risk associated with dual enrollment. Dually-enrolled beneficiaries have health and social needs that may be more substantial and require more resources to address than non-dually-enrolled beneficiaries, such as lack of family or caregiver support, functional or cognitive limitations, and greater medical complexity. Thus, adding measures of functional status, frailty, and/or other measures of medical complexity to the readmissions and ACSC measures used in Medicare Shared Savings Program may help ensure that providers do not face undue financial stress, and reduce disincentives to caring for high-risk populations.

Attention should also be given to developing quality and outcome measures specific to the ACO setting. Currently, some of the measures in use in the program were developed in the hospital setting or broader outpatient setting; their properties and performance may be very different when applied to ACOs. As the ACO programs mature, having measures designed for the ACO setting may allow better distinctions in quality between ACOs. CMS currently follows the Secretary's Core Quality Measures Collaborative recommendations for ACOs, and measures that are used are largely those developed by measure owners and NQF endorsed. Therefore, this (along with many if not most of the considerations in this report) will require external stakeholder support and input.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives to reward ACOs that achieve high quality or significant improvement specifically for beneficiaries with social risk factors.**

Achievement and/or improvement in high-risk populations should be rewarded, and this could be done by adding targeted payment adjustments to existing value-based purchasing programs.

An additional payment adjustment could be created for ACOs achieving high quality and serving a particularly socially at-risk population, as modeled above, or an additional payment adjustment could be provided specifically for achieving high performance in socially at-risk populations. The latter would more specifically leverage value-based payment to improve care for these beneficiaries, and offset potential incentives to avoid providing care to beneficiaries perceived to be at high risk of poor outcomes.



This type of approach has precedent in the Physician Value-based payment modifier Program and may provide additional protection against any incentives that the shared savings model may create to avoid caring for high-risk beneficiaries. This consideration is consistent with the policy goals of protecting providers from unfair financial stress and encouraging reduction in disparities in quality, and outcomes. Finally, given that under the recent proposed rule for the Quality Payment Program, Tracks 2 and 3 of the Medicare Shared Savings Program have the potential to meet all criteria necessary for designation as an Advanced APM, such a bonus could also encourage participation of providers serving beneficiaries with social risk factors in the program.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to ACOs that disproportionately serve beneficiaries with social risk factors to help improve quality.**

As the Medicare Shared Savings Program grows, learning and diffusion program activities or other existing quality improvement mechanisms could establish a specific focus on helping to share and spread promising strategies for improving care and outcomes for beneficiaries with social risk factors. Lessons learned from the Pioneer ACO Model or other models and demonstrations that may benefit these beneficiaries should also be disseminated via learning networks to provide support for these groups. These efforts would support policy goals to improve quality and outcomes, and reduce disparities in care.

Delivery system transformation aims to move healthcare consumers and providers into alternative payment/delivery models that focus on person-centered, coordinated and comprehensive care. It could be argued that beneficiaries with social risk factors could receive better care in these models and providers that serve large shares of these consumers could improve their quality by being part of these systems. Therefore, lessons from the Medicare Shared Savings Program will also be important for understanding the potential performance and experience of providers serving beneficiaries with social risk factors in alternative payment models under MACRA and how these providers could be encouraged to join alternative payment models in the future.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors in ACOs.**

In order to continue to achieve savings relative to benchmarks, ACOs will need to implement new strategies and innovations. The strategies learned from successful ACOs that may help optimally treat beneficiaries with social risk factors should be disseminated where feasible.

Additionally, much of this work is already ongoing at CMMI. Strategies suggested by the National Academies of Sciences, Engineering, and Medicine in their report summarized in Chapter 4, including the

importance of care coordination, population-based care, the use of comprehensive needs assessments, formation of collaborative partnerships with community organizations and home and community-based services providers, providing care continuity across settings, and engaging beneficiaries in their care, are among those used by ACOs currently and supported by many models and demonstrations at CMMI. Where successful, particularly for beneficiaries with social risk factors, these programs should be scaled more broadly. Further, there may be a role for specific demonstrations or models focused on beneficiaries with social risk factors in future ACO-based paradigms.

**CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors.**

One final piece of information that could be critical for policy recommendations in the future would be to understand more about the true costs of achieving good outcomes for beneficiaries with social risk factors. Further research could examine how costs differ for beneficiaries with social risk factors and for ACOs that serve a high proportion of beneficiaries with social risk factors.

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# CHAPTER 10: The Physician Value-Based Payment Modifier Program

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## In This Chapter:

- *Is there a relationship between beneficiary social or medical risk and performance on the metrics that comprise the Physician Value-Based Payment Modifier program?*
- *Is there a relationship between practice social or medical risk profile and performance on the metrics that comprise the program?*
- *Are practices that serve a high proportion of socially or medically at-risk individuals more likely to receive penalties under this program?*
- *What impact would policy options, including adjustment and stratification, have on practices' performance and bonuses or penalties?*

This chapter presents findings on the relationship between beneficiary or practice social or medical risk and performance under the Physician Value-Based Payment Modifier (VM) program.

## Key Findings

### Underlying Relationships

- Dually-enrolled and complex beneficiaries had higher readmission and ambulatory care-sensitive condition (ACSC) admission rates, even after adjustment for medical comorbidities and even within the same practice.
- Practices serving a high proportion of dually-enrolled or complex beneficiaries also had higher readmission and ACSC rates, even after adjustment for medical comorbidities and social risk factors. Practice effects were generally substantially smaller than the patient effects.
- Dually-enrolled beneficiaries had higher costs of care than other beneficiaries, even after risk adjustment and even within the same practices.
- Complex beneficiaries had lower costs of care than other beneficiaries, after accounting for medical risk and within the same practices.
- Practices serving a high proportion of dually-enrolled beneficiaries had similar or higher costs of care than other practices, after accounting for beneficiary dual enrollment. This was associated with both beneficiary and practice characteristics, although beneficiary effects were generally larger than practice effects.
- Practices serving a high proportion of complex beneficiaries had higher costs of care, even after accounting for beneficiary medical risk. This was primarily driven by practice effects.

Program Impacts

- Many practices did not successfully meet program requirements (failed to self-nominate for the PQRS as a group and report at least one measure, or failed to elect the PQRS administrative claims option) for the Physician VM Program. This was the most common reason for a downward adjustment in the program's first year. High-dual practices were twice as likely as other practices to fail to meet requirements for the program.
- High-dual practices were at higher risk of receiving a downward payment adjustment.
- High-complexity practices were at higher risk of receiving a downward payment adjustment.

Policy Simulations

- Adjusting readmission and ambulatory care-sensitive admission measures for dual enrollment had a negligible impact on payment adjustments.
- Adding medical risk adjustment to the ambulatory care-sensitive admission measures had a negligible impact on payment adjustments.
- Stratification equalized payment adjustments for high-dual versus other practices, but had a smaller effect on equalizing payment adjustments for high-complexity versus other practices.
- Adjusting cost measures for dual enrollment had little impact on payment adjustments.

Note: Since the VM program ends in 2018, strategies and considerations are provided to help with decision making for the Merit-based Incentive Payment System (MIPS), and generally are not feasible for implementation in VM given that timeframe.

**Strategies and Considerations for Physician VM**

<b>SUMMARY OF STRATEGIES AND CONSIDERATIONS</b>	
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>	
CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.	
CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to MIPS to assess and reward physician practice efforts to reduce health disparities.	
CONSIDERATION 3: Consider prospectively monitoring for potential unintended consequences in the current Physician VM program and in the MIPS program as it is implemented.	
<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>	
CONSIDERATION 1: The measures used in the Physician VM Program should continue to be examined to determine if adjustment for social risk factors is appropriate.	
CONSIDERATION 2: The ambulatory care-sensitive condition measures should be updated to account for medical risk.	

CONSIDERATION 3: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between practices.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

CONSIDERATION 1: Consider providing additional payment adjustments for practices that disproportionately serve beneficiaries with social risk factors and achieve high quality, or specifically for achieving high quality in beneficiaries with social risk factors.

CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to practices that disproportionately serve beneficiaries with social risk factors to help improve quality and ensure they can successfully participate in the reporting required for the MIPS program, or to assist in moving toward alternative payment model (APM) participation.

CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.

CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.

## I. Introduction

### A. Background

The Physician VM Program is a mandatory program that ties Medicare Physician Fee Schedule payments to the quality and costs of care delivered by physicians and other eligible professionals. Section 1848(p) of the Social Security Act, as added by section 3007 of the Affordable Care Act, requires the Secretary of the Department of Health and Human Services to “establish a payment modifier that provides for differential payment to a physician or a group of physicians under the fee schedule . . . based upon the quality of care furnished compared to cost.” In the first year of the program, 2015, the Centers for Medicare & Medicaid Services (CMS) applied a payment adjustment – or a “value modifier” – to payments under the physician fee schedule for large group practices with 100 or more eligible practitioners (EPs). The value modifier quality tiering will apply to all physicians and groups of physicians beginning in 2017.

Performance assessment in the first year of the Physician VM Program was aligned with the pre-existing Physician Quality Reporting System (PQRS) Program, and included performance metrics across six quality domains and two cost domains (see the Appendix to this chapter for additional information). Practices were scored on a mix of mandatory and discretionary quality measures, and could choose to report these measures via group reporting options for registries and a web-based interface, or by electing a one-time reporting method for measures calculated using Medicare Part A and Part B claims.

Group practices subject to the VM in 2015 that failed to self-nominate for the PQRS as a group and report at least one measure, or failed to elect the PQRS administrative claims option, received an automatic -1 percent payment adjustment. Group practices subject to the VM in 2015 that successfully self-nominated for the PQRS as a group and reported at least one measure, or elected the PQRS administrative claims option, had two options – they could elect to receive no adjustment (no matter what their performance) or to put their payments at risk based on quality and cost performance. Groups that selected the latter “quality tiering” option could receive either a positive, neutral, or negative adjustment based on their performance on measures of quality and cost. For example, groups with high costs and low quality received a negative payment adjustment, while groups with high quality and low costs received a positive adjustment (Table 10.1). The payment adjustments were applied to all of a practice’s physician payments under the Medicare Physician Fee Schedule in the affected payment year.

**Table 10.1. Value Modifier, 2015 Payment Adjustment Year**

	Low Quality	Average Quality	High Quality
<b>Low Cost</b>	0.0%	+1.0x%*	+2.0x%*
<b>Average Cost</b>	-0.5%	0.0%	+1.0x%*
<b>High Cost</b>	-1.0%	-0.5%	0.0%

\* “x” refers to a payment adjustment factor used to ensure budget neutrality across the program

Note: Throughout this chapter, years refer to the payment year of the program, unless otherwise specified.



The Physician VM Program will continue to expand through 2017 and sunsets in 2018 (its last payment year), applying quality tiering to smaller group practices and then solo practitioners and non-physician eligible professionals. The program increases the size of the adjustments to a maximum of +/- 4 percent<sup>j</sup> in 2017 and 2018, and requires quality tiering for a growing number of practices rather than making it optional, as it was in the first year. As the program expands, some measures are slated to be added starting in 2016, including the Medicare Spending per Beneficiary (MSPB) measure as well as patient experience measures from the 2016 Consumer Assessment of Healthcare Providers and Systems (CAHPS) for PQRS survey for groups that elect to include the results of their CAHPS in the calculation of their VM. Measurement methodology will be updated as well, for example adjusting cost measures for specialty mix starting in 2016, and increasing minimum case counts for certain measures to improve reliability, as the Physician VM Program expands to include small physician groups and solo practices.

In 2018, the Physician VM Program will sunset and CMS will launch the Merit-Based Incentive Payment System (MIPS), a new program that will combine elements of the Physician VM Program, the Physician Quality Reporting System, and the Medicare Electronic Health Record Incentive Program.

## **B. Existing Research on Social Risk Factors and the Physician VM Program**

The Physician VM Program is unique in its scale and scope, and thus in its potential impact on beneficiaries and practices. There is no prior experience with a mandatory physician value-based purchasing program. Furthermore, as the Physician VM Program is relatively new, there is limited prior research on the relationship between social risk and performance under this program. However, there is a significant body of work examining the relationship between social risk factors and performance on many of the metrics that underlie this program.

Prior research has shown that physician organizations located in areas of lower socioeconomic status (SES) perform worse in pay-for-performance programs than those in higher SES areas.<sup>1</sup> Similarly, physician panels that have a higher proportion of minority beneficiaries have been found to have lower quality scores.<sup>2</sup> Thus, there is concern that physician practices that serve a high proportion of beneficiaries with social risk factors may be at risk of poor performance under the Physician VM Program. Differences in practice performance may be due to poor quality physicians and other practitioners (whether due to resources, structural capabilities, or otherwise), or “practice factors.” Differences in practice performance may also be due to the challenges of caring for beneficiaries with social risk factors (whether due to weaker social supports, stigma of social risk, or otherwise), or “patient factors” (regardless of provider).<sup>3-5</sup>

In terms of the Physician VM Program’s mandatory quality measures, prior work has demonstrated that beneficiaries with social risk factors may perform poorly on many of them. For example, dually-enrolled,<sup>6,7</sup> Black,<sup>6,8</sup> and Hispanic<sup>9</sup> beneficiaries are more likely to be readmitted following a hospitalization, and these socially at-risk groups also have higher rates of ambulatory care-sensitive

<sup>j</sup> Because of the adjustment factor, the maximum upward adjustment is +4x%.

admissions.<sup>10-12</sup> Performance on the program's optional quality metrics has also been associated with social risk factors.<sup>13-15</sup> In terms of resource use, dually-enrolled beneficiaries have significantly higher costs of care than non-dually-enrolled beneficiaries.<sup>16,17</sup>

### **C. Limitations**

The results of the analyses in this chapter should be interpreted in light of their potential limitations. First, this analysis examined the performance of all VM-eligible practices in the program's first year, the time period for which data were available at the time the Report was being completed. Therefore, upward and downward adjustments are simulated for the 84% of VM-eligible practices that successfully self-nominated and reported, or elected the administrative claims option, but did not elect quality tiering. These analyses anticipate the second year of the program, when quality tiering will be required. Second, these results may not apply to smaller practices, since only physician group practices with at least 100 EPs were subject to the VM in 2015. Finally, as outlined in Chapter 2, these analyses examine social risk factors that are readily and reliably identified using Medicare claims. Further work may be necessary to better characterize social risk using more nuanced data. Results presented here will primarily focus on dual enrollment (including both full and partial dual enrollment) as a marker of poverty. However, one potential mechanism underlying the relationships seen between dual and poor outcomes may be that dually-enrolled beneficiaries are typically sicker, with worse functional status and higher levels of medical complexity, than the general Medicare population.<sup>18</sup> Therefore, analyses examining medical complexity are included in this chapter as well. Analyses of other social risk factors are included in the Appendix to this chapter.

### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and medical risk and performance on the measures contained in the VM program. Next, it examines the performance of providers serving socially at-risk or medically complex beneficiaries on these measures, and then the composite performance of these providers under the VM program penalty and bonus scheme. Following these analytic sections, a series of policy simulations are presented, focusing on adjustment, stratification, and rewarding improvement. Finally, strategies and considerations are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Practice Characteristics**

### **A. Beneficiary Characteristics**

On average, there were 5,138 fee-for-service Medicare beneficiaries attributed to each of 1,010 VM-eligible practices with 100+ EPs. As in the Medicare Shared Savings Program, attribution is based on the plurality of primary care services.

Among beneficiaries attributed to VM-eligible practices, dually-enrolled beneficiaries were more likely to be under 65, Black, Hispanic, and disabled, and were twice as likely as non-dually-enrolled beneficiaries to be in the highest quartile of medical complexity among all fee-for-service Medicare beneficiaries (Table 10.2). Medically complex beneficiaries were more likely to be older, Black, dually-enrolled, and have qualified for Medicare based on the presence of a disability.

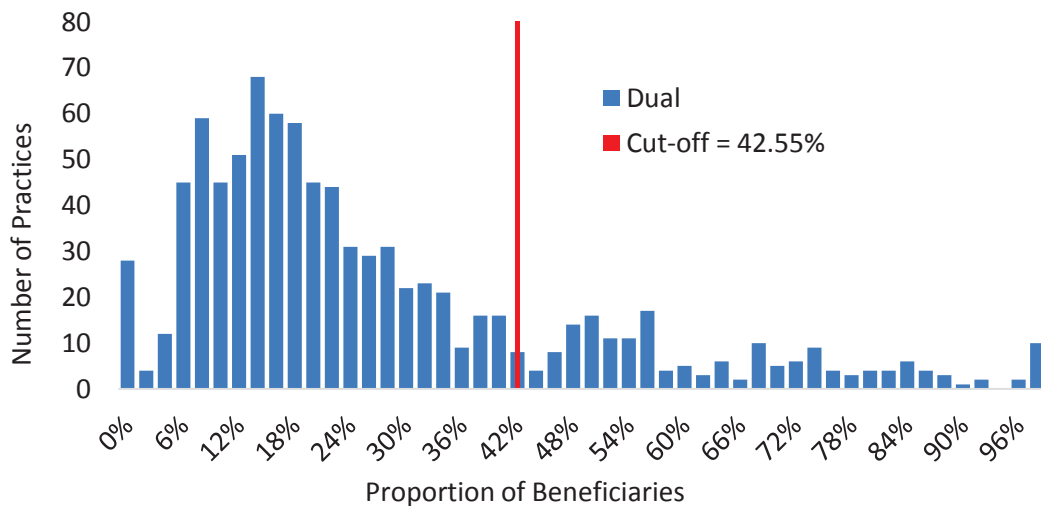
**Table 10.2. Beneficiary characteristics by social and medical risk categories**

Beneficiary Characteristics	Dually-enrolled	Non-dually-enrolled	High Complexity*	Low Complexity
<b>Number of Attributed Beneficiaries</b>	978,277	4,210,710	1,416,683	3,664,902
<b>Age Group, by years</b>				
0-64	55%	13%	18%	19%
65-74	21%	47%	27%	48%
75-84	15%	29%	31%	25%
85+	10%	12%	23%	8%
<b>Female</b>	62%	56%	56%	58%
<b>Race</b>				
Black	23%	7%	12%	9%
Hispanic	9%	3%	4%	4%
Other	68%	90%	84%	87%
<b>Dually-enrolled</b>	100%	0%	29%	15%
<b>High Complexity</b>	42%	24%	100%	0%
<b>Disability as Reason for Medicare Entitlement</b>	62%	14%	29%	21%
<b>Low Income</b>	65%	45%	51%	46%
<b>Rural</b>	18%	17%	16%	17%
<b>HCC Count</b>				
Unknown	2%	2%	2%	2%
0	25%	37%	0%	49%
1	22%	25%	4%	33%
2	17%	15%	16%	15%
3 - 5	23%	17%	59%	3%
6 - 9	8%	4%	18%	4%
10+	2%	1%	3%	1%
<p>HCC=Hierarchical Condition Categories.</p> <p>* High complexity is defined as the top quartile of HCC risk scores for all fee-for-service Medicare beneficiaries nationwide. Definitions of other patient characteristics are included in the methods appendix. Of note, less than 3% of attributed beneficiaries lacked adequate information to calculate HCC risk scores, and thus could not be classified as high complexity or not high complexity. All beneficiaries with unknown HCC risk score are dropped from both high-complexity and low-complexity columns in this table, since they could not be classified.</p>				

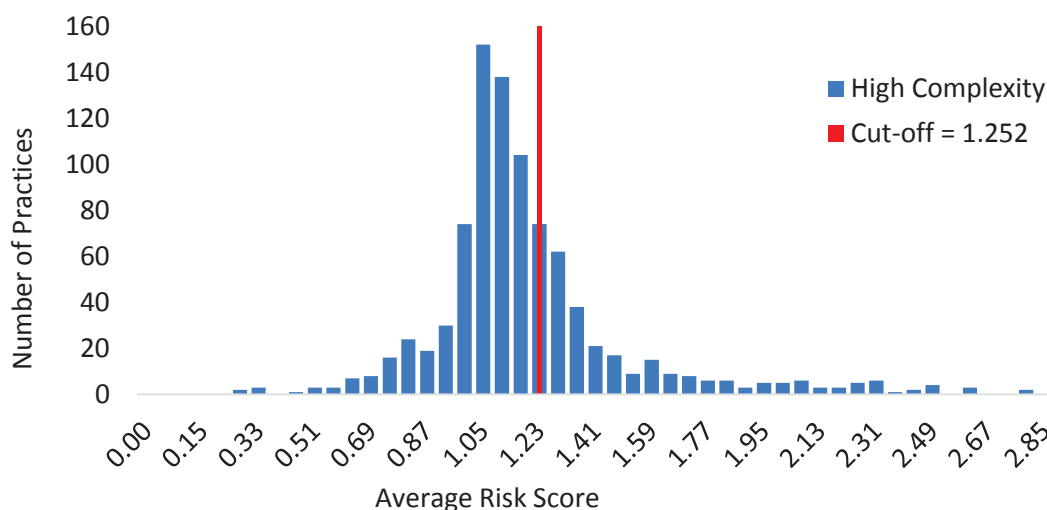
## B. Practice Characteristics

Practices were categorized by their proportion of at-risk beneficiaries. High-dual practices were defined as those in the top quintile when ranked by the proportion of attributed beneficiaries who were dually enrolled. High-complexity practices were defined as those whose attributed beneficiaries had an average Hierarchical Condition Category (HCC) risk score in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries. The proportion of beneficiaries with high medical and social risk varied widely between VM-eligible practices (Figure 10.1 and Figure 10.2, both displaying only VM-eligible practices with at least one attributed beneficiary).

**Figure 10.1. Distribution of Dually-Enrolled Patients by Practice**



**Figure 10.2. Distribution of Complex Beneficiaries by Practice**



The characteristics of beneficiaries seen at high-dual and high-complexity vs. other practices differed substantially. High-dual practices were more likely to serve Black, Hispanic, and disabled beneficiaries

with relatively lower income and higher medical complexity (Table 10.3). Results were similar for high-complexity practices. High-dual practices also had more than three times the proportion of dually-enrolled beneficiaries as other practices (59% vs. 17%), and slightly more complex beneficiaries than other practices (36% vs. 27%).

**Table 10.3. Beneficiary Characteristics at Practices Caring for a High Proportion of Dually-Enrolled or Complex Beneficiaries, Compared to Other Practices**

Beneficiary Characteristics	All VM eligible Practices	Dual Enrollment		Complexity	
		High	Other	High	Other
<b>No. of Attributed Beneficiaries</b>	5,189,000	284,270	4,904,730	696,881	4,492,199
<b>Age Group, years</b>					
0 - 64	20%	43%	19%	29%	19%
65 - 74	42%	29%	43%	35%	43%
75-84	26%	17%	26%	23%	26%
85 +	12%	10%	12%	13%	12%
<b>Female</b>	57%	56%	57%	57%	57%
<b>Race</b>					
Black	10%	32%	9%	20%	9%
Hispanic	4%	11%	3%	6%	3%
<b>Dually-enrolled</b>	19%	59%	17%	33%	17%
<b>High Complexity</b>	27%	36%	27%	37%	26%
<b>Disabled</b>	23%	49%	22%	32%	22%
<b>ZCTA Level Income</b>					
Unknown	3%	4%	3%	3%	3%
0 - 20k	0%	2%	0%	1%	0%
20k - 25k	1%	7%	1%	3%	1%
25k - 30k	3%	7%	2%	5%	2%
30k - 40k	14%	21%	14%	17%	14%
>40k	79%	60%	80%	71%	80%
<b>Rural</b>	17%	10%	17%	10%	18%
Note: All p-values<0.05. High-dual practices are those in the highest quintile after ranking practices by proportion of dual patients; other practices are those in the bottom four quintiles. High complexity practices' average HCC scores were at or above the 75 <sup>th</sup> percentile of HCC scores among all fee-for-service Medicare beneficiaries; other practices had average HCC scores below the 75 <sup>th</sup> percentile of HCC scores among all fee-for-service Medicare beneficiaries.					

Practice characteristics also differed substantially. Physicians at high-dual practices were less likely to have met Stage 1 Meaningful Use requirements, and their practices were more likely to be owned by a hospital (Table 10.4). Results were similar for high-complexity practices. Among those practices that were high-dual, 53% were also high-complexity practices.

**Table 10.4. Characteristics of Physicians and Practices Caring for a High Proportion of Dually-Enrolled or Complex Beneficiaries, Compared to Other Physicians and Practices**

Eligible Practitioner Characteristics	VM Eligible Practices	Dual Enrollment		Complexity	
		High	Other	High	Other
<b>No. of Physicians</b>	n=301,655	n=45,078	n=256,677	n=80,185	n=221,470
<b>Female</b>	44%	<b>46%</b>	<b>43%</b>	44%	44%
<b>Age Group, years</b>					
<b>&lt;40</b>	39%	<b>38%</b>	<b>39%</b>	<b>41%</b>	<b>38%</b>
<b>41-50</b>	27%	<b>26%</b>	<b>28%</b>	<b>27%</b>	<b>28%</b>
<b>51-60</b>	23%	<b>23%</b>	<b>23%</b>	<b>21%</b>	<b>23%</b>
<b>61-70</b>	10%	<b>11%</b>	<b>9%</b>	<b>9%</b>	<b>10%</b>
<b>71+</b>	2%	<b>3%</b>	<b>1%</b>	<b>2%</b>	<b>1%</b>
<b>Specialty</b>					
<b>Physician</b>	60%	<b>59%</b>	<b>64%</b>	<b>64%</b>	<b>59%</b>
<b>Primary care</b>	19%	<b>18%</b>	<b>21%</b>	<b>25%</b>	<b>17%</b>
<b>Medical specialty</b>	25%	<b>22%</b>	<b>27%</b>	<b>22%</b>	<b>25%</b>
<b>Surgical specialty</b>	9%	<b>8%</b>	<b>10%</b>	<b>10%</b>	<b>9%</b>
<b>Ob/gyn</b>	4%	<b>3%</b>	<b>4%</b>	<b>3%</b>	<b>4%</b>
<b>Psychiatry</b>	3%	<b>8%</b>	<b>3%</b>	<b>4%</b>	<b>3%</b>
<b>Non-physician</b>	24%	<b>25%</b>	<b>23%</b>	<b>20%</b>	<b>26%</b>
<b>Other</b>	15%	<b>16%</b>	<b>13%</b>	<b>15%</b>	<b>16%</b>
<b>Meaningful Use (Stage 1)*</b>	25%	<b>10%</b>	<b>29%</b>	<b>23%</b>	<b>26%</b>
<b>Practice Characteristics</b>					
<b>Physicians (n, mean)</b>	298	<b>247</b>	<b>309</b>	321	290
<b>100-149</b>	39%	<b>36%</b>	<b>40%</b>	39%	40%
<b>150-199</b>	20%	<b>22%</b>	<b>20%</b>	18%	21%
<b>200-299</b>	16%	<b>16%</b>	<b>17%</b>	15%	17%
<b>300-399</b>	8%	<b>13%</b>	<b>7%</b>	9%	7%
<b>400-499</b>	3%	<b>3%</b>	<b>3%</b>	2%	3%
<b>500+</b>	13%	<b>10%</b>	<b>14%</b>	17%	12%
<b>Specialty Mix</b>					
<b>All primary care</b>	0%	0%	0%	0%	0%
<b>All specialty</b>	11%	8%	11%	4%	13%
<b>Multi-specialty</b>	89%	92%	88%	96%	86%
<b>Ownership Type</b>					
<b>Any Hospital</b>	13%	<b>24%</b>	<b>11%</b>	13%	13%
<b>No Hospital</b>	87%	<b>76%</b>	<b>89%</b>	87%	87%
<p>Boldface font indicates <math>p &lt; 0.05</math>, testing for difference between high social risk vs. other. Ob/gyn: obstetrics and gynecology. Primary care is general practice, pediatrics, geriatric medicine, internal medicine or family practice. A list of the types of providers in the non-physician and other categories is included in the Supplementary Material. All specialty indicates the practice is comprised entirely of providers who are not primary care physicians. *Does not include Medicaid Meaningful Use.</p>					

### III. Beneficiary Social and Medical Risk Factors and VM Performance Measures

Of the multiple quality metrics on which practices are evaluated, three are mandatory: all-condition readmissions and two composite ambulatory-care sensitive condition (ACSC) measures. Of note, the all-condition readmissions measure will apply only to groups with 10 or more eligible professionals starting in 2017. These mandatory quality measures are claims-based outcome metrics with patient-level data and thus can be analyzed to determine any underlying relationships between social or medical risk and these clinical outcomes. The five cost measures included in the first year of the program were all mandatory and claims-based.

#### A. Readmissions

To determine whether dually-enrolled or complex beneficiaries have higher readmission rates than other beneficiaries, regression models were constructed. These models included a random effect for practice, in order to isolate the within-practice effect of dual enrollment and complexity. Models were first run without adjustment for age, gender, and comorbidities, and subsequently with these elements, following measure specifications.

Dually-enrolled and complex beneficiaries were more likely to be readmitted to the hospital, even after controlling for differences in patient risk and practice selection. For example, within 30 days of discharge for a surgical/gynecological admission, 16.3% of dually-enrolled beneficiaries were re-admitted compared to 10.2% of non-dually-enrolled beneficiaries (Table 10.5). This difference might be explained by a variety of factors, including differences in patient factors (e.g., co-morbidities, resources at home), and practice factors (e.g., dually-enrolled beneficiaries may disproportionately be seen by poor quality practices). However, compared to non-dually-enrolled beneficiaries seen in the same practice, dually-enrolled beneficiaries still had 58% greater odds of being re-admitted after a surgical/gynecological admission. Even after risk-adjustment, dually-enrolled beneficiaries had 20% greater odds of readmission than non-dually-enrolled beneficiaries in the same practice.

Findings were similar for the other cohorts, with fully-adjusted within-practice odds ratios for readmission from 1.11 to 1.20 (surgical, medical, cardiorespiratory, cardiology, and neurology, Table 10.5). Similar patterns were evident for complex beneficiaries. These findings suggest that patient factors contribute to differential readmission rates between beneficiaries with versus without social and medical risk factors.



**Table 10.5. Odds of Readmission for Dually-Enrolled or Complex Beneficiaries, Stratified by Type of Index Admission**

Risk Factor	Without Risk-Adjustment				Risk-Adjusted
	Raw rate		Raw Odds Ratio	Random Effects (within-practice) Odds Ratio	Random Effects Odds Ratio with risk adjustment
	High-Risk (dual/complex)	Non-High-Risk (Ref.)			
	Surgery/Gynecology				
Dually-enrolled	16.3%	10.2%	1.72	1.58	1.20
Complex	15.8%	7.6%	2.30	2.22	1.35
	Medicine				
Dually-enrolled	19.4%	15.7%	1.30	1.24	1.11
Complex	19.1%	11.8%	1.77	1.73	1.22
	Cardiorespiratory				
Dually-enrolled	22.7%	17.5%	1.38	1.33	1.18
Complex	20.9%	12.7%	1.82	1.79	1.26
	Cardiovascular				
Dually-enrolled	17.4%	13.0%	1.41	1.36	1.16
Complex	16.8%	9.8%	1.87	1.85	1.24
	Neurology				
Dually-enrolled	14.8%	11.6%	1.33	1.28	1.14
Complex	14.4%	9.6%	1.58	1.55	1.14
All bolded odds ratios are significant at p<0.05. These analyses were based on all VM-eligible practices. Regressions included either dual or complex, but not both in the same model. Details about risk-adjustment for the readmissions measure can be found at: <a href="http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&amp;ItemID=69324">http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&amp;ItemID=69324</a>					

**B. Ambulatory Care-Sensitive Conditions**

The ambulatory care sensitive condition (ACSC) measures track preventable admissions, or admissions for acute and chronic conditions that are ideally treated in outpatient settings. Here too, beneficiaries with high medical or social risk had worse outcomes than other beneficiaries. For example, admissions for any of several acute conditions (i.e., bacterial pneumonia, urinary tract infection, dehydration) per 1,000 attributed beneficiaries were 32.06 for dually-enrolled beneficiaries, but only 17.28 for non-dually-enrolled beneficiaries (Table 10.6). On average, dually-enrolled beneficiaries had 73% higher odds of admission for these acute conditions than non-dually-enrolled beneficiaries in the same practice. After further accounting for differences in risk between dually-enrolled beneficiaries and non-dually-enrolled beneficiaries, dually-enrolled beneficiaries had more than twice the odds of being admitted for an acute condition than non-dually-enrolled beneficiaries. Results were similar across conditions.

For most conditions, differences were even larger when comparing complex beneficiaries to other beneficiaries in the same practice. For example, admissions for any of several acute conditions (i.e., bacterial pneumonia, urinary tract infection, dehydration) per 1,000 attributed beneficiaries were 47.33 for complex beneficiaries, but only 9.84 for patients that were not complex. On average, complex beneficiaries had more than four times the odds of admission for these acute conditions than non-dual patients in the same practice. After further accounting for differences in risk between complex beneficiaries and other patients, complex beneficiaries still had almost four times the odds of being admitted for an acute condition than patients who were not complex.

These findings suggest that, even within the same practice, beneficiaries with high medical and social risk are more likely to be admitted for the target conditions than other beneficiaries.

**Table 10.6. Risk-Adjusted Odds of Admission for Acute and Chronic Ambulatory Care Sensitive Conditions (ACSCs) for Dually-enrolled Eligible or Complex Beneficiaries**

Risk Factor	Without Risk-Adjustment				Risk-Adjusted
	Raw ACSC Admissions per 1,000 Beneficiaries		Raw Odds Ratio	Random Effects (within-practice) Odds Ratio	Random Effects Odds Ratio with Risk Adjustment
	High Risk	Other (Reference)			
	Acute Composite				
Dually-enrolled	32.06	17.28	1.88	1.73	2.09
Complex	47.45	9.84	5.01	4.74	3.89
	Bacterial Pneumonia				
Dually-enrolled	15.05	8.78	1.72	1.61	2.03
Complex	24.13	4.69	5.25	5.07	4.22
	Urinary Tract Infection				
Dually-enrolled	11.19	5.17	2.18	1.95	2.30
Complex	15.21	2.98	5.16	4.74	3.68
	Dehydration				
Dually-enrolled	5.86	3.31	1.78	1.66	1.80
Complex	8.21	2.15	3.85	3.66	3.22
All bolded ORs are significant at p<0.05. COPD=chronic obstructive pulmonary disease. These analyses were based on all VM-eligible practices. Regressions included either dual or complex, but not both in the same model. Risk adjustment includes age category and gender, and is outlined in more detail in the Appendix to this chapter.					

**Table 10.6 (continued). Risk-Adjusted Odds of Admission for Acute and Chronic Ambulatory Care Sensitive Conditions (ACSCs) for Dually-enrolled Eligible or Complex Beneficiaries**

Risk Factor	Without Risk-Adjustment				Risk-Adjusted
	Raw ACSC Admissions per 1,000 Beneficiaries		Raw Odds Ratio	Random Effects (within-practice) Odds Ratio	Random Effects Odds Ratio with Risk Adjustment
	High Risk	Other (Reference)			
	Chronic Composite				
Dually-enrolled	103.79	58.12	1.88	1.74	1.68
Complex	112.11	32.49	3.76	3.66	3.57
	Diabetes Composite				
Dually-enrolled	41.41	12.47	3.42	3.02	1.87
Complex	32.19	9.60	3.43	3.19	3.53
	COPD or Asthma				
Dually-enrolled	87.85	57.07	1.59	1.50	1.62
Complex	88.78	40.77	2.92	2.27	2.33
	Heart Failure				
Dually-enrolled	116.18	103.19	1.14	1.10	1.14
Complex	115.09	84.17	1.42	1.40	1.36
All bolded ORs are significant at p<0.05. COPD=chronic obstructive pulmonary disease. These analyses were based on all VM-eligible practices. Regressions included either dual or complex, but not both in the same model. The risk-adjustment variables are age category and sex and are presented in more detail in the Appendix to this chapter.					

**C. Total and Condition-Specific per Capita Costs of Care**

The “total per capita costs of care” measure captures annual risk-adjusted, price-standardized Medicare Parts A and B spending for attributed beneficiaries. The “condition-specific per capita costs of care” measure captures this same spending for beneficiaries with a given chronic condition. Dually-enrolled and complex beneficiaries had higher per capita costs of care than other beneficiaries. For example, total per capita costs were almost \$7,000 higher for dual than non-dually-enrolled beneficiaries (\$17,465 vs. \$10,739) (Table 10.7).

The Physician VM Program’s risk-adjustment model substantially reduced the price-standardized differences in costs between high-risk and other beneficiaries. Of note, the HCC risk score used in the VM program’s risk-adjustment model includes Medicaid enrollment.

In a random effects model that included Physician VM Program risk-adjustment variables (HCC risk score, HCC risk score squared, ESRD) and the primary independent predictor of dual status, total per capita costs were +\$725 higher for dual compared to non-dual patients. In a separate random effects model that included Physician VM Program risk-adjustment variables and the primary independent

predictor of complexity (i.e., high-complexity patient vs. not), total per capita costs were -\$338 lower for high-complexity compared to other patients. Please see **Appendix** for methodological details.

**Table 10.7. Total and Condition-Specific Costs of Care for Dually-Enrolled or Complex Beneficiaries**

Risk Factor	Costs				
	Unadjusted, Average, Standardized				With Physician VM Program Risk - Adjustment
	High-Risk Beneficiaries	Non-High-Risk Beneficiaries	Raw Difference	Coefficient for either Dual or Complex*	Coefficient for either Dual or Complex*
	<b>Total Per Capita Costs</b>				
<b>Dually-enrolled</b>	\$17,465	\$10,739	\$6,726	<b>\$4,729</b>	<b>\$725</b>
<b>Complex</b>	\$22,554	\$7,605	\$14,949	<b>\$12,865</b>	<b>-\$338</b>
	<b>Heart Failure Per Capita Costs</b>				
<b>Dually-enrolled</b>	\$34,809	\$24,778	\$10,031	<b>\$7,516</b>	<b>\$2,979</b>
<b>Complex</b>	\$29,865	\$22,065	\$7,800	<b>\$6,140</b>	<b>-\$4,341</b>
	<b>Diabetes Per Capita Costs</b>				
<b>Dually-enrolled</b>	\$22,533	\$13,505	\$9,028	<b>\$6,919</b>	<b>\$1,972</b>
<b>Complex</b>	\$24,112	\$9,302	\$14,809	<b>\$12,895</b>	<b>-\$630</b>
	<b>COPD Per Capita Costs</b>				
<b>Dually-enrolled</b>	\$31,455	\$22,881	\$8,574	<b>\$6,412</b>	<b>\$2,388</b>
<b>Complex</b>	\$31,222	\$17,231	\$13,991	<b>\$12,086</b>	<b>-\$1,318</b>
	<b>CAD Per Capita Costs</b>				
<b>Dually-enrolled</b>	\$27,028	\$16,208	\$10,820	<b>\$8,284</b>	<b>\$2,963</b>
<b>Complex</b>	\$25,172	\$12,112	\$13,060	<b>\$11,118</b>	<b>-\$782</b>
<p>*From random effects model</p> <p>The Physician VM Program uses price-standardized dollars and adjusts for HCC risk score (which includes dual status), HCC risk score squared, and ESRD. Bold-faced betas are significant at <math>p &lt; 0.05</math>. CAD=coronary artery disease; COPD=chronic obstructive pulmonary disease; DM=diabetes mellitus; HF=heart failure; HCC= hierarchical condition category; and ESRD=end-stage renal disease. These analyses are based on U.S. practices of any size included in the VM database, with at least one attributed beneficiary. Regressions included either dual or complex, but not both in the same model. A high-complexity patient is defined as one with an HCC risk score in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries nationwide.</p>					

#### IV. Practice Social Risk and VM Performance

##### A. Readmissions

To quantify how much of a practice's performance was associated with practice versus beneficiary characteristics, two additional analyses were performed. The first compared beneficiaries seen at practices that serve a high proportion of dually-enrolled (or complex) beneficiaries (i.e., "high-dual" or "high-complexity" practices) to beneficiaries at other practices using regression models with a random effect for practice. Next, beneficiary factors were also added to the model, to determine whether the practice effect was driven by population, or if it was independent of beneficiaries' social and medical risk (Table 10.8). These analyses showed that practice effects were partially but not fully driven by the population of beneficiaries served.

The first comparison showed that beneficiaries cared for at high-dual practices had 29% higher risk-adjusted odds of being readmitted to the hospital within 30 days of a surgical/gynecological admission; this dropped to 23% higher odds after accounting for individual beneficiaries' dual enrollment. These results suggest that both beneficiary and practice factors contribute to the relatively higher readmission rates at high-dual practices. Results were similar for high-complexity practices.

**Table 10.8. Practice Factors in Readmissions**

Risk Factor	Risk-Adjusted Odds of Readmission for a Beneficiary at a High-Risk Practice	Risk-Adjusted Odds of Readmission for a Beneficiary at a High-Risk Practice, additionally Adjusting for Dual Enrollment or Complexity
<b>Surgery/Gynecology</b>		
High-Dual Practice	<b>1.29</b>	<b>1.23</b>
Complex Practice	<b>1.22</b>	<b>1.21</b>
<b>Medicine</b>		
High-Dual Practice	<b>1.14</b>	<b>1.10</b>
Complex Practice	<b>1.18</b>	<b>1.17</b>
<b>Cardiorespiratory</b>		
High-Dual Practice	<b>1.24</b>	<b>1.18</b>
Complex Practice	<b>1.20</b>	<b>1.19</b>
<b>Cardiovascular</b>		
High-Dual Practice	<b>1.24</b>	<b>1.19</b>
Complex Practice	<b>1.19</b>	<b>1.18</b>
<b>Neurology</b>		
High-Dual Practice	<b>1.28</b>	<b>1.24</b>
Complex Practice	<b>1.22</b>	<b>1.21</b>
Random effects models were used to generate odds ratios (ORs). Bolded betas are significant at p<0.05. Details about risk-adjustment for the readmissions measure can be found at: <a href="http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&amp;ItemID=69324">http://www.qualityforum.org/WorkArea/linkit.aspx?LinkIdentifier=id&amp;ItemID=69324</a>		

**B. Ambulatory Care-Sensitive Conditions**

The analyses described in the last section were repeated for acute and chronic ACSCs. Again, high-dual and high-complexity practices each generally had worse outcomes than other practices. For example, beneficiaries cared for at high-dual practices had 28% higher odds of being admitted for one of the acute conditions (i.e., bacterial pneumonia, urinary tract infection, and dehydration), than beneficiaries cared for at other practices (Table 10.9). However, when both beneficiary and practice factors were included in the same model (e.g., dual enrollment status and high-dual practice status), beneficiaries seen at high-dual practices no longer had higher rates of admission for most ACSCs.

Separate models were run to examine complexity. For complex practices, the odds of admission tended to drop markedly after adjusting for medical complexity, but remained significant in all cases. Also, in almost all cases the practice effects (high-complexity practice) were smaller than beneficiary effects (complex patient) (compare Table 10.6 and Table 10.9). Together, these analyses suggest that beneficiary factors, rather than practice factors, somewhat better explain the higher admission rates seen for dually-enrolled and complex beneficiaries.

**Table 10.9. Practice Factors in ACSCs**

<b>Risk Factors</b>	<b>Risk-Adjusted Odds of Admission for a Beneficiary at a High-Risk Practice</b>	<b>Risk-Adjusted Odds of Admission for a Beneficiary at a High-Risk Practice, additionally Adjusting for Dual Enrollment or Complexity of Patient</b>
<b>Acute Composite</b>		
<b>High-Dual Practice</b>	<b>1.28</b>	1.00
<b>Complex Practice</b>	<b>1.77</b>	<b>1.46</b>
<b>Bacterial Pneumonia</b>		
<b>High-Dual Practice</b>	<b>1.21</b>	0.95
<b>Complex Practice</b>	<b>1.54</b>	<b>1.27</b>
<b>Urinary Tract Infection</b>		
<b>High-Dual Practice</b>	<b>1.45</b>	1.09
<b>Complex Practice</b>	<b>1.85</b>	<b>1.57</b>
<b>Dehydration</b>		
<b>High-Dual Practice</b>	<b>1.24</b>	1.03
<b>Complex Practice</b>	<b>1.82</b>	<b>1.55</b>
Random effects models were used to generate odds ratios (ORs). Bolded betas are significant at p<0.05. COPD=chronic obstructive pulmonary disease. These analyses are based only on VM-eligible practices. Regressions included an indicator for either high-dual or high-complexity practice, but not both in the same model. Risk adjustment includes age category and sex.		

Table 10.9 continued. Practice Factors in ACSCs

Risk Factors	Risk-Adjusted Odds of Admission for a Beneficiary at a High-Risk Practice	Risk-Adjusted Odds of Admission for a Beneficiary at a High-Risk Practice, additionally Adjusting for Dual Enrollment or Complexity of Patient
<b>Chronic Composite</b>		
<b>High-Dual Practice</b>	<b>1.24</b>	1.06
<b>Complex Practice</b>	<b>1.54</b>	<b>1.35</b>
<b>Diabetes Composite</b>		
<b>High-Dual Practice</b>	<b>1.38</b>	<b>1.17</b>
<b>Complex Practice</b>	<b>1.71</b>	<b>1.49</b>
<b>COPD or Asthma</b>		
<b>High-Dual Practice</b>	<b>1.33</b>	<b>1.15</b>
<b>Complex Practice</b>	<b>1.36</b>	<b>1.25</b>
<b>Heart Failure</b>		
<b>High-Dual Practice</b>	<b>1.14</b>	<b>1.10</b>
<b>Complex Practice</b>	<b>1.18</b>	<b>1.16</b>
Random effects models were used to generate odds ratios (ORs). Bolded betas are significant at p<0.05. COPD=chronic obstructive pulmonary disease. These analyses are based only on VM-eligible practices. Regressions included an indicator for either high-dual or high-complexity practice, but not both in the same model. Risk adjustment includes age category and sex.		

### C. Total and Condition-Specific per Capita Costs of Care

High-dual practices generally had similar costs of care than non-high-dual practices after risk adjustment (Table 10.10). When both patient (i.e., dual enrollment) and practice factors (i.e., high-dual practice) were accounted for, most patterns were unchanged.

Separate models were run to examine complexity. High-complexity practices had higher costs than other practices. When both patient (i.e., complex) and practice factors (i.e., high-complexity practice) were accounted for, results were largely unchanged. Please see **Appendix** for methodological details.

These results for total and condition-specific per capita costs of care measures suggest that the poorer performance of high-complexity practices on cost measures is driven primarily by practice factors.



**Table 10.10. Practice Factors in Per Capita Cost Measures**

<b>Risk Factors</b>	<b>Difference in Average Practice-level Risk-Adjusted Costs , for a High-Risk vs. Other Practice</b>	<b>Difference in Average Practice-level Risk-Adjusted Costs, after additionally Adjusting for Dual Status or Complexity of Patient</b>
	<b>Total</b>	
<b>High-Dual Practice</b>	-\$246	\$687
<b>Complex Practice</b>	<b>\$3,204</b>	<b>\$3,204</b>
	<b>HF</b>	
<b>High-Dual Practice</b>	<b>\$2,413</b>	<b>\$668</b>
<b>Complex Practice</b>	<b>\$6,981</b>	<b>\$6,951</b>
	<b>Diabetes</b>	
<b>High-Dual Practice</b>	<b>\$1,700</b>	\$625
<b>Complex Practice</b>	<b>\$4,471</b>	<b>\$4,471</b>
	<b>COPD</b>	
<b>High-Dual Practice</b>	<b>\$2,859</b>	<b>\$1,390</b>
<b>Complex Practice</b>	<b>\$6,611</b>	<b>\$6,604</b>
	<b>CAD</b>	
<b>High-Dual Practice</b>	<b>\$2,349</b>	\$893
<b>Complex Practice</b>	<b>\$6,254</b>	<b>\$6,256</b>
<p>Bolded betas are significant at <math>p &lt; 0.05</math>. CAD=coronary artery disease; COPD=chronic obstructive pulmonary disease; DM=diabetes mellitus; HF=heart failure. The risk adjustments are done based on US practices of any size included in the VM database, with at least one attributed beneficiary. The coefficients are from practice-level regressions using only VM-eligible practices meeting minimum reporting requirements, and are not weighted for number of attributed beneficiaries. The Physician VM Program uses price-standardized dollars and adjusts for HCC risk score (which includes dual status), HCC risk score squared, and ESRD.</p>		

## **V. Impact of Physician VM Program on Providers Serving Populations with High Social or Medical Risk**

### **A. Participation**

The VM program applied to all physician groups with 100 or more eligible professionals in 2015. In order to avoid the automatic downward adjustment for failure to meet minimum reporting requirements, large groups were required to register for one of the PQRS group practice reporting options and successfully report on a minimum number of performance metrics, or elect the one time administrative claims based option for the first year of the program. Groups could also elect to be subject to quality tiering which would allow their physician fee schedule payments to be adjusted based on their quality and cost performance. Among all VM eligible practices, fewer than half (48.4%) of all top-dual practices registered and met the minimum reporting requirement, while over three-quarters (76.4%) of non-high-dual VM eligible practices registered and met the minimum reporting requirement. High-complexity practices participated in the Physician VM Program at almost the same rates as other practices (62.0% vs. 72.5%). In the first year of the Physician VM Program, practices that did not self-nominate for the

PQRS as a group and report at least one measure, or elect the PQRS administrative claims option received an automatic -1% downward adjustment.

### B. Measure and Domain Performance in Practices Meeting Reporting Requirements

For those practices that self-nominated for the PQRS as a group and reported at least one measure, or elected the PQRS administrative claims option, high-dual practices had relatively worse performance on the all-cause hospital readmission measure and on acute ACSC measures (Table 10.11). Quality results were similar for complex practices. In terms of costs, high-dual practices were as costly as other practices, and complex practices were more costly than other practices.

Of note, in the tables below, higher VM quality scores indicate better performance (i.e., higher quality), and lower VM cost scores indicate better performance (i.e., lower cost).

**Table 10.11. Practice-Level Performance on Mandatory Quality and Cost Measures, Stratified by Proportion of Dually-Enrolled or Complex Beneficiaries**

Measure Type	Description	Dual Enrollment		Complexity	
		High	Other	High	Other
Quality Measures	Readmissions, Raw Rate	16.4%	15.4%	16.4%	15.3%
	Readmissions, Score (higher is better)	0.05	0.69	0.01	0.81
	Acute ACSC, Raw Rate	10.2%	7.2%	10.8%	6.7%
	Acute ACSC, Score (higher is better)	-0.28	0.18	-0.37	0.27
	Chronic ACSC, raw rate	62.9%	69.2%	65.8%	69.2%
	Chronic ACSC, Score (higher is better)	-0.34	-0.56	-0.43	-0.568
Per Capita Cost Measures	Total, \$	\$10,363	\$10,316	\$12,834	\$9,511
	Total, score (lower is better)	0.18	0.15	1.76	-0.37
	HF, \$	\$27,730	\$25,479	\$30,576	\$24,238
	HF, Score (lower is better)	0.34	-0.10	0.91	-0.35
	DM, \$	\$16,192	\$14,820	\$18,154	\$13,989
	DM, Score (lower is better)	0.70	0.15	1.49	-0.18
	COPD, \$	\$26,392	\$24,1610	\$29,225	\$22,937
	COPD, score (lower is better)	0.60	0.10	1.23	-0.17
	CAD, \$	\$19,293	\$17,571	\$22,188	\$16,393
	CAD, Score (lower is better)	0.71	0.13	1.67	-0.26
All bolded differences are significant at p<0.05. Readmissions are all-cause readmissions. For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries. For complexity, high refers to practices for which the average HCC risk score among attributed beneficiaries is in the top quartile of HHC risk scores among all fee-for-service Medicare beneficiaries. This table shows results for VM-eligible practices meeting minimum program requirements. ACSC=ambulatory care-sensitive conditions; CAD=coronary artery disease; COPD=chronic obstructive pulmonary disease; DM=diabetes mellitus; HF=heart failure					

Individual measures based on at least 20 eligible beneficiaries are rolled up into quality and cost domains. High-dual practices performed worse in the clinical process/effectiveness, patient safety, and care coordination domains (Table 10.12); complex practices performed more poorly on clinical process/effectiveness, patient safety, and care coordination. High-dual practices did not have higher costs than other practices; high-complexity practices had worse performance in both cost domains.

**Table 10.12. Practice-level Performance on Cost and Quality Domains and Composites, Stratified by High-Dual or High-Complexity Practice vs. Other Practice**

Measure Type	Description	Dual Enrollment		Complexity	
		High	Other	High	Other
<b>Quality Domains (high=better)</b>	<b>Clinical Process/Effectiveness</b>	<b>-0.57</b>	<b>0.10</b>	<b>-0.25</b>	<b>0.10</b>
	<b>Population/Public Health</b>	<b>-0.10</b>	<b>0.03</b>	<b>-0.12</b>	<b>0.04</b>
	<b>Patient Safety</b>	<b>0.07</b>	<b>0.38</b>	<b>0.17</b>	<b>0.40</b>
	<b>Care Coordination</b>	<b>-0.31</b>	<b>0.26</b>	<b>-0.33</b>	<b>0.35</b>
<b>Quality Composite (higher is better)</b>		<b>-0.93</b>	<b>0.03</b>	<b>-0.64</b>	<b>0.08</b>
<b>Cost Domains (low=better)</b>	<b>Total per capita costs</b>	0.21	0.11	<b>1.45</b>	<b>-0.28</b>
	<b>Condition-Specific Per Capita Costs</b>	0.36	0.03	<b>1.07</b>	<b>-0.23</b>
<b>Cost Composite (lower is better)</b>		0.10	-0.01	<b>0.61</b>	<b>-0.18</b>
All bolded differences are significant at $p < 0.05$ . For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries. For complexity, high refers to practices for which the average HCC risk score among attributed beneficiaries is in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries. This table shows results for VM-eligible practices meeting minimum program requirements. Two of six quality domains (patient and family engagement; efficient use of health care resources) were omitted due to a limited number of measures and inadequate sample size.					

These results are also reflected in the scatterplots included in the Appendix.

### C. Financial Impact of Performance

Finally, practices' quality and cost composite scores determine payment adjustments. Practices that are high-cost and low or average quality, or average cost and low quality, receive a downward payment adjustment (red boxes in Tables 10.13a/b). Practices that are low-cost and average or high quality, or high quality and average cost, receive an upward payment adjustment (green boxes in in Tables 10.13a/b).

**Table 10.13a/b. Value Modifier by High-Dual or High-Complexity Practice vs. Other Practice, Among VM-Eligible Practices Meeting Program Requirements**

(Note: the tables reflect the actual VM adjustment for practices that selected quality tiering and the VM adjustment that would have been made based on quality and cost scores for those that did not select quality tiering)

**Table 10.13a: Value Modifier by High-Dual Practice vs. Other Practice**

	High-dual practices (N=88)			Other Practices (N=618)		
	Low Quality	Average Quality	High Quality	Low Quality	Average Quality	High Quality
<b>Low Cost</b>	3.4%	5.7%	0.0%	1.5%	1.1%	0.5%
<b>Average Cost</b>	14.8%	62.5%	2.3%	3.9%	85.6%	4.5%
<b>High Cost</b>	10.2%	0.0%	1.1%	1.8%	1.9%	0.2%

**Table 10.13b: Value Modifier by High-complexity Practice vs. Other Practice**

	High-complexity practices (N=155)			Other Practices (N=551)		
	Low Quality	Average Quality	High Quality	Low Quality	Average Quality	High Quality
<b>Low Cost</b>	0.6%	0.6%	0.0%	0.9%	2.0%	0.5%
<b>Average Cost</b>	7.1%	72.3%	0.6%	4.7%	85.7%	5.3%
<b>High Cost</b>	11.6%	6.5%	0.6%	0.4%	0.4%	0.2%

Differences in individual cost and quality measure performance translated into higher rates of receiving a downward adjustment. For example, high-dual practices were about three times as likely to receive a downward adjustment compared to other practices (Table 10.14). High-complexity practices were almost five times as likely to receive a downward adjustment compared to other practices, and this was the result of being both lower quality and higher cost compared to other practices. As noted earlier, since quality tiering – which ties performance to payment – was optional in the first year of the Physician VM Program, these adjustments were simulated for the majority of VM-eligible practices that did not elect quality tiering (QT) in the first year. A table showing these results stratified by QT status is available in the Appendix.

**Table 10.14. Summary of Payment Adjustment, by High-Dual or High-Complexity Practice vs. Other Practice**

Value Modifier	Dually-enrolled			Complexity		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.0%	7.6%	<b>17.4%</b>	25.2%	5.4%	<b>19.7%</b>
<b>Neutral, % of practices</b>	67.0%	86.2%	<b>-19.2%</b>	73.5%	86.8%	<b>-13.2%</b>
<b>Upward, % of practices</b>	8.0%	6.1%	<b>1.8%</b>	1.3%	7.8%	<b>-6.5%</b>
All bolded differences are significant at p<0.05. For dually-enrolled beneficiaries, high refers to practices in the top quintile of proportion of dual beneficiaries. For complexity, high refers to practices for which the average HCC risk score among attributed beneficiaries is in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries.						

## VI. Policy Options for Modifying the Current Physician VM Program

### A. Introduction

Since the VM program ends in 2019, the policy considerations that follow are generally not logistically feasible for implementation in the Physician VM Program. However, to the extent that the Physician VM Program's approach to measurement or payment adjustment is carried forward to MIPS, many of these considerations would be applicable to MIPS. Simulations would need to be repeated under MIPS measurement and payment structure at such time as these specifications and updated data are available.

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk. Those policy criteria are reiterated in Table 10.15:

**Table 10.15: Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How policymakers weight these criteria could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

Policy options are summarized in Table 10.16 below, and then explored in detail. Each option is considered in turn, taking into account: 1) earlier findings about the strength of the association of patient vs practice factors on practice performance; 2) the policy criteria described above; and 3) how each option would change payment adjustments made to high social risk vs. other practices, based on simulations. A final set of policy considerations then follows.

Table 10.16. Summary of Policy Options

Option	Description	Pros	Cons
<b>1. Status Quo</b>	Maintain the current policy for VM.	Status quo avoids disrupting a program shortly before it sunsets. High-dual practices are slightly more likely to receive upward adjustment.	High-dual practices are fiscally challenged and their performance may be worse than other practices due to patient factors beyond their control.
<b>2. Adjust Mandatory Quality Measures or Quality Score for Social Risk</b>	a) Add dual status to the formula for calculating mandatory quality measures. b) Provide an upward bump in the composite quality score of high-social-risk practices.	Accounts for differences in risk profile between practices. May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.	Hides differences in performance by social risk, and may not encourage reduction in disparities in quality and outcomes. Does not account for the fact that some of the differences in quality performance between high-social-risk and other practices may be due to a lower quality of care delivery, and could therefore reward differences beyond those related directly to dual enrollment. Could worsen transparency.
<b>3. Adjust ACSC Measures for Medical Complexity</b>	Add Hierarchical Condition Category (HCC) risk score to the ACSC model.	Accounts for differences in the medical complexity of patients attributed to different practices. May protect practices from unfair financial stress. May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations. Would be in keeping with the decision in the Medicare Shared Savings Program to move toward risk-adjusted ACSC measures.	Different than the ACSC measure used for larger units (e.g., region).
<b>4. Directly Adjust Mandatory Cost Measures for Dual Status</b>	Add dual enrollment status as an independent predictor to the per capita cost models.	Accounts for dual status as an independent predictor of costs, above and beyond its contribution to the HCC risk score, which is already included in the per capita cost models. May protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.	Hides differences in performance by social risk.

Table 10.16 (continued). Summary of Policy Options

Option	Description	Pros	Cons
<b>5. Stratify Practices into Groups</b>	Break practices into groups based on the proportion of patients who are dually enrolled.	Compares practices against other “like” practices based on dual enrollment of attributed patients. Similar to what MedPAC has proposed for readmission rates. May protect providers from unfair financial stress. May protect beneficiaries’ access to care by reducing disincentives to caring for high-risk populations.	Hides differences in performance by social risk, depending on how stratification is implemented. May not encourage reduction in disparities in quality and outcomes. Does not account for the fact that some of the differences in quality performance between high-social-risk and other practices may be due to a lower quality of care delivery, and could therefore reward differences beyond those related directly to dual enrollment. Might create unusual “cliffs”. May penalize practices performing well on an absolute scale.
<b>6. Reward Improvement</b>	Reward practices that improve performance as well as those that achieve high performance.	Gives practices at the bottom of the distribution the chance to reduce penalties by improving, even if absolute performance remains too low to get achievement points.	Improving performance on some of the quality measures (e.g., readmission rates) may be difficult in the context of social risk.
<b>7. Provide a Payment Adjustment for High Performance for Socially At-Risk Populations</b>	Multiply the payment bonus for practices with the highest proportion of dually enrolled beneficiaries.	Acknowledges that achieving high quality may be more difficult in high-social-risk practices, due in part to patient factors. Encourages reduction in disparities in quality and outcomes. May protect practices from unfair financial stress. May protect beneficiaries’ access to care by reducing disincentives to caring for high-risk populations. Mirrors the current bonus for high medical risk.	Only rewards practices that are already able to achieve very high performance.
<b>8. Adopt a Health Equity Domain to Reward Practices with Smaller Disparities</b>	Rewards practices with smaller disparities, so long as minimum quality standards are met.	Encourages reduction in disparities in quality and outcomes. Also accounts for the possibility that a given practice may treat patients differently based on social risk.	Practices that do not see a minimum number of high-social-risk and low-social-risk patients would be excluded from this assessment.



## **B. Results of Policy Simulations**

### **1. Status Quo**

There are several reasons for maintaining the status quo. First, the Physician VM Program will sunset at the end of 2018, although certain aspects of it will be included in the Merit-based Incentive Payment System (MIPS), which will apply to Part B payments beginning in 2019. It would be difficult, if not impossible, to implement changes in that timeframe, given the rulemaking schedule. Even if changes were successfully proposed, such changes might be disruptive and confusing to practices that are working to become familiar with program parameters for MIPS. In addition, the effect of any changes to the Physician VM Program would be relatively short-lived. Second, the Physician VM Program has been implemented in a manner that is designed to reward or penalize only a small proportion of practices based on performance. Participating practices receive a high or low quality or cost designation only if their quality or cost composite score is: 1) at least one standard deviation away from the mean of the corresponding peer group, and 2) statistically significantly different from the mean quality or cost composite score. Thus, relatively few practices receive a downward or upward adjustment, and simulated policy changes do not affect this basic distribution. This contrasts with other programs such as HVBP (and likely MIPS), for which the majority of providers receive a downward or upward adjustment.

As a methodological note, the first criterion was used only to classify practices. For large practices subject to the VM Program in its first year and electing quality tiering, the addition of the second criterion to the first criterion had a minor impact on how practices were classified in the program.

Despite strong reasons to maintain the status quo, some might argue that knowingly holding high-dual practices accountable for care that is due to patient factors beyond their control for any length of time risks undermining providers' buy-in for future practice-level pay-for-performance programs, including MIPS. It could also set a weak precedent for equitable performance measurement in MIPS.

### **2. Adjust Mandatory Quality Measures (ACSCs, Readmissions) or Overall Quality Score for Dual Enrollment Status**

The first adjustment option (2a in the table above) is direct adjustment of the mandatory quality measures for dual enrollment status. This policy option would directly account for the challenges that practices face in reducing admissions and readmissions for dually-enrolled beneficiaries, and better account for differences in risk profile between practices. Such adjustment may protect providers from unfair financial stress, and may protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.

However, adjustment may hide differences in performance by social risk, and may not encourage reduction in disparities in quality and outcomes. Adjustment, depending on how such a technique was implemented, could reward differences beyond those related directly to dual enrollment. Adjusting for social risk could also worsen transparency and make it more difficult for beneficiaries to compare the

absolute performance of a practice. This weakness is especially important to consider if performance measures for physicians or practices are to be publicly reported on Physician Compare.

Though this policy option might change which groups receive penalties or bonuses, it would not change total penalties or bonuses awarded in the Physician VM Program. In this way, it would meet the Physician VM Program's budget neutrality requirement. This option would likely require that each of these measures be tested, validated, and approved with new risk adjustment methodologies.

To simulate this option, the readmissions and ACSC measures were directly adjusted for dual enrollment. Adjusted measures were rolled up to the practice level, producing a new Value Modifier. After adjustment for dual enrollment, differences between high-dual and other practices showed only minor changes, with about 1% fewer high-dual practices receiving a downward adjustment and 1% more high-dual practices receiving an upward adjustment (Table 10.17).

**Table 10.17. Impact on High-Dual Practices of Adjusting Mandatory VM Quality Measures for Dual Enrollment Status**

Value Modifier	High-Dual Practices, Current Program			High-Dual Practices, after Adjustment of Readmissions and ACSCs for Dual Status		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.0%	7.6%	<b>17.4%</b>	23.9%	7.6%	<b>16.3%</b>
<b>Neutral, % of Practices</b>	67.0%	86.2%	<b>-19.2%</b>	68.2%	86.7%	<b>-18.5%</b>
<b>Upward, % of Practices</b>	8.0%	6.1%	<b>1.8%</b>	8.0%	5.7%	<b>2.3%</b>
Bolded differences are significant at p<0.05. For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries.						

In option 2b, practices would receive an adjustment at the quality composite level based on their proportion of dually-enrolled beneficiaries. This option would directly address concerns about disincenting care for high-risk populations and concerns about financial strain for high-dual practices. However, as above, the drawback of this option is that it does not account for the fact that some of the differences in quality performance between high-social-risk and other practices may be due to a lower quality of care delivery, and could therefore reward differences beyond those related directly to dual enrollment.

As above, though this policy option might change which groups receive penalties or bonuses, it would not change total penalties or bonuses awarded in the Physician VM Program. In this way, it would meet the Physician VM Program's budget neutrality requirement. This option would require rulemaking.

To simulate this option, the standard deviation of the quality composite score was calculated for all VM-eligible practices. One-fifth of this standard deviation was then multiplied by each practice's percentage of high social risk beneficiaries. The practice-specific product was added to each practice's original quality composite score, to produce a simulated quality composite score for each practice. The

simulated quality composite scores were then standardized, and based on these standardized scores, practices were re-classified into new quality categories.

This version of a quality adjustment led to minimal reductions in the difference between the proportion of high-dual vs. non-high-dual practices receiving a downward adjustment (17.4% vs. 14.0%, Table 10.18):

**Table 10.18. Impact of Quality Composite Adjustment for High-Dual Practices**

Value Modifier	High-Dual Practices, Current Program			High-Dual Practices, after Applying Quality Composite Adjustment		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.0%	7.6%	<b>17.4%</b>	21.6%	7.6%	<b>14.0%</b>
<b>Neutral, % of Practices</b>	67.0%	86.2%	<b>-19.2%</b>	69.3%	86.6%	<b>-17.3%</b>
<b>Upward, % of Practices</b>	8.0%	6.1%	<b>1.8%</b>	9.1%	5.8%	<b>3.3%</b>
Bolded differences are significant at p<0.05. For dually-enrolled beneficiaries, high refers to practices in the top quintile of proportion of dual beneficiaries.						

### 3. Adjust ACSCs for Clinical Risk

Ambulatory care sensitive condition measures (ACSCs) are based on the premise that high quality outpatient care can prevent hospitalizations for certain conditions such as pneumonia and heart failure. Thus, higher rates of admission for ACSCs may indicate worse quality. These measures are currently only adjusted for age group and gender. This is because early versions of the ACSC measures were created with large denominators, such as the population of a county or MSA; in groups this large, differences in comorbidities may be less important. However, for comparisons of smaller groups (such as physician practices), small differences in risk profile can translate into large differences in performance. These measures have also not been formally endorsed by NQF or a similar entity to assess physician practices.

Since high-social-risk practices are also more likely to treat beneficiaries with a higher burden of illness, not adjusting ACSCs for clinical risk could unfairly penalize such practices. It may also provide high-social-risk practices with incentives to avoid complex beneficiaries. The benefit of this policy option is thus that it accounts for differences in the medical complexity of patients attributed to different practices, and in doing so, may protect providers from unfair financial stress. It also may protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations. One drawback is that an adjusted measure would be different than the ACSC measure used for larger units (e.g., region).

Though this policy option might change which groups receive penalties or bonuses, it would not change total penalties or bonuses awarded in the Physician VM Program. In this way, it would meet the Physician VM Program's budget neutrality requirement. This option would require measure re-specification and potentially rulemaking.

This policy option modeled adjusting ACSCs for clinical risk by using the HCCs currently utilized for risk-adjusting the readmissions measure. After adjustment for clinical risk, there was little change in the

overall patterns of performance for high-dual or high-complexity practices, in part because these measures are only one component of the overall quality score for practices (Table 10.19a/b).

**Table 10.19a. Impact on High-Dual Practices of Adjusting ACSCs for Clinical Risk**

Value Modifier	High-Dual Practices, Current Program			High-Dual Practices, after Adjustment of ACSCs for Clinical Risk		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.0%	7.6%	<b>17.4%</b>	26.1%	7.9%	<b>18.2%</b>
<b>Neutral, % of Practices</b>	67.0%	86.2%	<b>-19.2%</b>	65.9%	86.7%	<b>-20.8%</b>
<b>Upward, % of Practices</b>	8.0%	6.1%	<b>1.8%</b>	8.0%	5.3%	<b>2.7%</b>
Bolded differences are significant at p<0.05. For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries.						

**Table 10.19b. Impact on High-Complexity Practices of Adjusting ACSCs for Clinical Risk**

Value Modifier	High-Complexity Practices, Current Program			High-Complexity Practices, after Adjustment of ACSCs for Clinical Risk		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.2%	5.4%	<b>19.7%</b>	25.8%	5.8%	<b>20.0%</b>
<b>Neutral, % of Practices</b>	73.5%	86.8%	<b>-13.2%</b>	72.9%	87.3%	<b>-14.4%</b>
<b>Upward, % of Practices</b>	1.3%	7.8%	<b>-6.5%</b>	1.3%	6.9%	<b>-5.6%</b>
Bolded differences are significant at p<0.05. For complexity, high refers to practices for which the average HCC risk score among attributed beneficiaries is in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries.						

#### 4. Directly Adjust Mandatory Cost Measures for Dual Enrollment Status

This policy option would directly account for the fact that dually enrolled beneficiaries have significantly higher resource use than non-dually enrolled beneficiaries even after adjusting for medical comorbidities. In addition, although this policy option might change which groups receive penalties or bonuses, it would not change total penalties or bonuses awarded in the Physician VM Program. In this way, it would meet the Physician VM Program's budget neutrality requirement. However, it also has a few notable weaknesses. Similar to adjusting mandatory quality measures for dual enrollment, this option would likely require that each of the cost measures be tested, validated, and approved with new risk-adjustment methodologies. Adjusting for social risk could also mask performance disparities and make it more difficult for beneficiaries to compare the absolute performance of a practice.

In the current Physician VM Program, the five per capita cost measures are adjusted for HCC risk score (one component of which is dual status), HCC risk score squared, and ESRD. To simulate this option, all per capita cost measures were additionally directly adjusted for dual status (i.e., dual status, HCC risk score, HCC risk score squared, and ESRD; please see Appendix for details). Adjusted measures were rolled up to the practice level, producing a new Value Modifier.

This simulation had little effect on payment adjustments for high-dual practices. While direct adjustment for dual status significantly improved the average cost score for high-dual practices, from 0.14 to 0.02 (with lower cost scores being better), it moved very few high-cost practices enough to lead to a change in payment (Table 10.20). However, the movement that was seen did shift a few high-dual practices from a neutral to upward adjustment:

**Table 10.20. Impact of Adjusting Mandatory Cost Measures for Dual Enrollment Status**

Value Modifier	High-Dual Practices, Current Program*			High-Dual Practices, after Adjustment of Cost Measures for Dual Enrollment Status		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	26.1%	7.9%	<b>18.2%</b>	26.1%	7.8%	<b>18.4%</b>
<b>Neutral, % of Practices</b>	68.2%	85.9%	<b>-17.7%</b>	67.0%	86.1%	<b>-19.0%</b>
<b>Upward, % of Practices</b>	5.7%	6.1%	<b>-0.4%</b>	6.8%	6.1%	<b>0.7%</b>
*Note: for this simulation, a different baseline was calculated to facilitate comparative analyses. Bolded differences are significant at p<0.05. For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries.						

## 5. Stratify Practices into Groups Based on Social Risk

This policy option compares practices' quality performance to that of other practices with similar proportions of dually-enrolled (or complex) beneficiaries. It addresses the concern that a practice's performance is in part due to patient factors that are difficult to measure precisely but are beyond its control. These include factors for which dual enrollment may be a marker, such as patient social support, financial resources, and health literacy. This option may protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations, and may protect providers from unfair financial stress.

However, a weakness of stratification is that it sets a different standard of care for beneficiaries depending on the practice where they seek their care. The worse performance of high-dual practices on quality measures is in part due to patient factors, but for some quality metrics (e.g., readmissions) it is also due in part to practice factors. If stratification is not paired with incentives for improvement, stratification could give a "free pass" to high-social-risk practices that might otherwise place more effort on changing practice factors that impact quality performance. It may also reduce incentives to address disparities in quality and outcomes.

Though this policy option might change which groups receive penalties or bonuses, it would not change total penalties or bonuses awarded in the Physician VM Program. In this way, it would meet the Physician VM Program's budget neutrality requirement.

This simulation stratified practices into quintiles, based on their proportion of dually-enrolled beneficiaries. Quality composite scores for practices were then re-standardized, based on each practice's performance on this metric relative to other practices in the same quintile. The Value Modifier

was re-calculated using the updated quality composite scores. This simulation eliminated the differences between high-dual and non-high-dual practices in terms of the likelihood of receiving a downward adjustment (i.e., 17.4% before simulation and statistically significant vs. 6.4% after simulation and no statistical significance) (Table 10.21a).

**Table 10.21a. Impact of Stratification by Proportion Dually Enrolled, on Upward and Downward Adjustments**

Value Modifier	High-Dual Practices, Current Program			High-Dual Practices, after Stratification by Dual Enrollment		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.0%	7.6%	<b>17.4%</b>	14.8%	8.4%	6.4%
<b>Neutral, % of Practices</b>	67.0%	86.2%	<b>-19.2%</b>	75.0%	85.3%	-10.3%
<b>Upward, % of Practices</b>	8.0%	6.1%	<b>1.8%</b>	10.2%	6.3%	3.9%
Bolded differences are significant at p<0.05. For dual enrollment, high refers to practices in the top quintile of proportion of dually-enrolled beneficiaries.						

Stratification also reduced the differences between high-complexity and non-high-complexity practices on the likelihood of receiving a downward adjustment (i.e., 19.7% before simulation vs. 11.3% after simulation) (Table 10.21b).

**Table 10.21b. Impact of Stratification by Complexity, on Upward and Downward Adjustments**

Value Modifier	High-Complexity Practices, Current Program			High-Complexity Practices, after Stratification by Complexity		
	High	Other	Difference	High	Other	Difference
<b>Downward, % of Practices</b>	25.2%	5.4%	<b>19.7%</b>	21.3%	10.0%	<b>11.3%</b>
<b>Neutral, % of Practices</b>	73.5%	86.8%	<b>-13.2%</b>	76.1%	82.2%	<b>-6.1%</b>
<b>Upward, % of Practices</b>	1.3%	7.8%	<b>-6.5%</b>	2.6%	7.8%	<b>-5.2%</b>
Bolded differences are significant at p<0.05. For complexity, high refers to practices for which the average HCC risk score among attributed beneficiaries is in the top quartile of HCC risk scores among all fee-for-service Medicare beneficiaries.						

## 6. Reward Improvement

The Physician VM Program rewards achievement, but does not explicitly reward improvement. This approach contrasts with programs such as the Hospital Value-based Purchasing (HVPB) Program, which incentivizes hospitals based on both achievement and improvement.

Rewarding improvement recognizes that high-social-risk practices may start with poorer performance on quality measures in absolute terms, but rewards practices that are able to make significant strides in improving quality even if they have not yet reached the level of quality necessary to avoid penalties. A drawback is that rewarding improvement may not narrow the performance gap between high-social-risk practices and other practices if improvement is also more difficult for beneficiaries with social risk factors.



Data for the second program year were not available at the time of this Report's writing, and thus this option was not simulated.

## **7. Provide a Financial Incentive for High Performance for Socially At-Risk Populations**

This policy option recognizes that it may be more difficult for practices serving beneficiaries with social risk factors to deliver the same quality care as other practices, and that this may in part be due to patient factors beyond a practice's control. The strength of this option is that practices serving beneficiaries with social risk factors are only provided with a bonus if they would have received an upward adjustment in the current program. This option acknowledges that achieving high quality may be more difficult in high-social-risk practices, due in part to patient factors, and encourages reduction in disparities in quality and outcomes by putting a focus on socially at-risk groups. This option may protect providers from unfair financial stress, and may protect beneficiaries' access to care by reducing disincentives to caring for high-risk populations.

One weakness of this option is that few high-social-risk practices reach the performance threshold required to receive an upward adjustment, so few practices would be directly affected by this option.

This policy option would only be budget-neutral if included in the overall budget neutrality calculations for the program, which is feasible. It would likely require rulemaking given the existence of a similar payment adjustment for high-medical-risk practices.

This policy option is modeled after a bonus already included in the Physician VM Program, which accounts for the challenges of treating medically complex beneficiaries. The Physician VM Program's existing high-risk bonus --  $+1.0\% \times (\text{adjustment factor})$  -- is awarded to practices that perform well and treat beneficiaries that on average are complex, which is defined as the top quartile of the Hierarchical Condition Category (HCC) risk score.

This financial incentive could be operationalized as follows: practices in the highest quintile of social risk that received an upward adjustment under current Physician VM Program parameters would be provided with an extra bonus of  $+1.0\% \times (\text{adjustment factor})$ . This would not impact the proportion of practices receiving an upward or downward adjustment, and simply provides the 8% of current high-risk practices that already received an upward payment adjustment with an additional bonus. This option is thus not presented in tabular form here. This option would be budget neutral if the adjustment factor "X" took into account the bonuses.

## **8. Adopt a Health Equity Measure or Domain to Reward High-Performing Practices that Have Smaller Within-Practice Differences in Quality Performance**

The option of providing financial incentives for practices to achieve smaller within-practice quality differences assumes that reducing disparities in care within a practice is a desirable goal. This option mimics what a "health equity" measure or domain might look like, if it were to be developed.

Implementation of such a measure or domain would require development and testing, and thus a simulation is not presented here given the lack of availability of patient-level data for many of the



quality metrics. However, in principle, one way to assess “equity” would be to calculate, for each measure, the ratio of a practice’s performance for dually-enrolled beneficiaries versus non-dually-enrolled beneficiaries: for example, if a practice achieved blood pressure control in 60% of its dual beneficiaries and 80% of its non-dual beneficiaries, the equity ratio for the blood pressure control measure would be  $0.6/0.8$  or  $0.75$ . These ratios could then be averaged across performance measures to create an overall equity score for the practice. Another alternative would be to create z-scores for absolute differences in performance between dually-enrolled beneficiaries and non-dually-enrolled beneficiaries on each measure, and use those z-scores to create a composite score.

Either way, such a score could then be used as a measure, and included in an existing quality domain, or could be made into its own domain. Alternatively, the equity score could be used to create a separate financial incentive: if a practice met a pre-determined quality threshold, it might be eligible to also receive an equity bonus if it performed well on the equity score. Prior to implementation, options would need to be simulated.

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Quality Metrics

- Dually-enrolled beneficiaries and complex beneficiaries had significantly higher readmission and ambulatory care-sensitive admission rates, even after risk adjustment for medical comorbidities and even within the same practice.
- Practices serving a high proportion of dual or complex beneficiaries also had higher readmission rates and ambulatory sensitive condition admission rates, independent of patient risk status. Practice effects were generally substantially smaller than the beneficiary effects for admission rates.

#### Cost / Resource Use Metrics

- Dually-enrolled beneficiaries had higher costs of care than other beneficiaries, even after risk adjustment and even within the same practices.
- Complex beneficiaries had higher absolute costs of care, but lower risk-adjusted costs of care than other beneficiaries, after accounting for medical risk and within the same practices.
- Practices serving a high proportion of dually-enrolled beneficiaries had similar or higher costs of care than other practices, after accounting for beneficiary dual enrollment status. This was related to beneficiary and practice effects, although beneficiary effects were generally larger than practice effects.
- Practices serving a high proportion of complex beneficiaries had higher costs of care, even after accounting for beneficiary medical risk. Patterns of spending above and beyond complexity (as included in the VM model) were due to practice effects.

Program Impacts

- Many practices did not successfully meet program requirements (failed to self-nominate for the PQRS as a group and report at least one measure, or failed to elect the PQRS administrative claims option) for the Physician VM Program. This was the most common reason for a downward adjustment in the program's first year. High-dual practices were twice as likely as other practices to fail to meet requirements for the program.
- High-dual practices performed worse on quality and similarly on costs to other practices, and therefore were at higher risk of receiving a downward payment adjustment.
- High-complexity practices performed worse on both quality and costs compared to other practices, and therefore were at markedly higher risk of receiving a downward payment adjustment.

Policy Simulations

- Adjusting readmission and ambulatory care-sensitive admission measures for dual enrollment had a negligible impact on payment adjustments.
- Adding medical risk adjustment to the ambulatory care-sensitive admission measures had a negligible impact on payment adjustments for high-dual versus other practices, and high-complexity versus other practices.
- Stratification equalized payment adjustments for high-dual versus other practices, but had a smaller effect on equalizing payment adjustments for high-complexity versus other practices.
- Adjusting cost measures for dual enrollment had little impact on payment adjustments.

**B. Strategies and Considerations**

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors.

**Note:** Since the VM program ends in 2018, strategies and considerations are provided to help with decision making for MIPS, and generally are not feasible for implementation in VM given that timeframe.

**STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.**

The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible. For example, high-dual practices performed worse on a number of dimensions

in the Physician VM Program. In some cases (e.g., the readmission measure), performance differences were due to both beneficiary and practice factors. In other cases (e.g., ACSCs), performance differences were due primarily to beneficiary factors. For many quality measures, data were not available to examine the influence of beneficiary vs. practice factors for many quality measures, since the metrics are collected either on samples of beneficiaries or without patient identifiers.

For measures currently collected on only a sample of patients, such as those related to patient experience and processes of care, a strategy should be developed to capture data that would allow calculation and reporting of performance by important subgroups. This strategy would allow the Department and practices, as well as consumers, to better-understand who performs well for dually-enrolled beneficiaries and where there are particular areas for targeted improvement. This is consistent with the policy goal of encouraging reductions in disparities in quality and outcomes, and also promotes transparency to facilitate consumer choice.

Alternate sampling methods may be necessary for measures in which sample size is currently too small. Such methods could include samples rolled over multiple measurement periods; on the other hand, for some measures, such data collection may ultimately not be feasible. Collecting adequate data on beneficiaries with social risk factors could potentially be burdensome for providers. However, there are many instances in which similar or identical measures are being captured in multiple Medicare sub-populations, including fee-for-service beneficiaries, ACO beneficiaries, and MA beneficiaries within a practice. Harmonizing data collection with other quality programs, including Medicare Advantage or the Medicare Shared Savings Program, could increase the efficiency of data collection while at the same time allowing better identification of disparities in care and outcomes.

When adequate data are available, key quality and resource use measures stratified by social risk should be developed and considered for physician practice feedback and/or public reporting, so that practices, policymakers, and consumers can see and address important disparities in care. While not all measures may lend themselves to reporting by subgroup, a key subset of measures should be pursued for subgroup reporting at the practice level.

**CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to MIPS to assess and reward physician practice efforts to reduce health disparities.**

As outlined in Chapter 4, the report from the National Academies of Sciences, Engineering, and Medicine performed under the IMPACT body of work supported the prioritization of equity as a key strategy in delivering high-quality care to beneficiaries with social risk factors.<sup>19</sup> Financial incentives help providers prioritize areas for particular focus, and specific measures targeting equity within existing value-based purchasing programs can therefore send a powerful signal. This may be achieved by adding a health equity measure or domain to existing programs.

A measure or domain for health equity should be added to the MIPS quality metrics to provide an explicit incentive and expectation of reducing health disparities for participants in MIPS; this concept was put out for public comment in preparation for the MIPS program. As there are no currently in-use health equity measures in the Medicare programs, this will require development and testing, and is not feasible in the short term or in the VM program. A measure of health equity may play an important role in ensuring that pay-for-performance programs help to incent, rather than disincent, improving care for beneficiaries with social risk factors. This approach would align with the policy criterion of encouraging reduction of disparities.

Specific approaches or measure(s) related to health equity have not been evaluated; however, measures could include performance on measures of disparity reduction (within a practice, or compared to a national benchmark for the patient subgroup of interest), or include structural measures to give credit to ACOs that have undertaken quality improvement efforts targeting beneficiaries with social risk factors.

**CONSIDERATION 3: Consider prospectively monitoring for potential unintended consequences in the current VM program and in the MIPS program as it is implemented.**

As the VM program expands to more, smaller practices, it will be important to continue to monitor the relationship between the proportion of beneficiaries with social risk factors attributed to a practice and performance under the VM program. In particular, this relationship may be different or of a different magnitude for smaller practices than the larger practices currently included in the program.

Moreover, as the MIPS program is developed and implemented, continued prospective monitoring of the quality of care provided to beneficiaries with social risk factors will help to identify and address unintended consequences of the new program. Findings from the current and future VM program may help to inform particular aspects of the MIPS program that should be a focus of this monitoring.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: The measures used in the Physician VM Program should continue to be examined to determine if adjustment for social risk factors is appropriate.**

The measures in the Physician VM program, similarly to those contained in the HVBP program discussed in Chapter 7, are a diverse set – they include process measures, which are not adjusted for medical or social risk; outcome measures, which are adjusted for medical but not social risk; and resource use measures, which are adjusted for both medical and social risk. This points out the importance of considering each measure independently to determine whether or not adjustment is appropriate, and if

so, what kind.

Adjustment of resource use measures for social risk factors, where such relationships exist, is currently done in the VM program and elsewhere in Medicare because higher resource use (measured as costs) may reflect higher need rather than lower quality. Dually-enrolled beneficiaries may have greater needs, including social support, functional or cognitive limitations, or higher severity of disease, and require greater resources to achieve the same outcomes as other beneficiaries. For example, institutional post-acute care settings, which are more costly than post-acute home health care, may nonetheless be most appropriate for recuperating beneficiaries with unstable housing who cannot safely be discharged home, or for beneficiaries with disabilities who need specialized equipment during their post-acute recovery period. Prior evidence has suggested that beneficiaries with social risk factors are at lower risk of over-use and higher risk of unmet medical need, so failing to account for these factors in resource use measures could have unintended consequences in Medicare value-based purchasing programs.

In this chapter, analyses showed that even after adjusting for medical comorbidities and adjusting for social risk via the HCC score, dually-enrolled individuals had higher spending on the total costs of care measures, in general. This should be explored in more depth, including examination of where the additional spending comes from and whether it is considered preventable, or whether it may be reflective of higher needs. Such information would assist in determining whether further adjustment is necessary.

If deemed necessary, one potential means for adjusting these (or other) resource use measures would be using the updated 2017 HCC risk-adjustment model used for adjusting Medicare Advantage payments. In 2016, the MA program performed analyses of fee-for-service spending and determined that the prior version of the model under-predicted costs for full-benefit dually-enrolled beneficiaries by 8% but over-predicted costs in partial-benefit dually-enrolled beneficiaries. They concluded that the model could be improved by breaking community-dwelling beneficiaries into six mutually exclusive segments to predict costs: under-65 fully dual-enrolled, under-65 partially dual-enrolled, under-65 non dually-enrolled beneficiaries, and these three same dual enrollment categories in the 65 and over population. Currently, the Total and Condition-Specific per Capita Costs of Care measures use a variant of the HCC model; the measures could be tested to determine if simply using the updated HCC model improves estimation of costs for dually-enrolled beneficiaries or beneficiaries with disabilities.

This may be particularly salient as additional resource use measures, such as the Medicare Spending per Beneficiary measure, are added to the program; this measure is not currently adjusted for social risk. This measure is explored in depth in the HVBP chapter, which demonstrates that the additional resource use for dually-enrolled beneficiaries was largely in the post-acute setting, raising the question of whether it was reflective of higher care needs rather than overuse. It will be important to better understand how practices caring for beneficiaries with high social risk performed on the MSPB, and which components of episode spending may have differed for high-social-risk vs. other types of beneficiaries.

**CONSIDERATION 2: The ambulatory care-sensitive condition measures should be updated to account for medical risk.**

It is standard practice to account for medical risk when measuring quality. This is based on the premise that where possible, comparisons of physician performance should be “apples-to-apples” comparisons. However, the ACSCs, which are mandatory quality measures in the Physician VM Program, adjust only for age and gender. This approach to risk-adjustment may be due to the fact that AHRQ initially intended ACSCs to assess the care of populations in a given region, rather than within a physician practice. Complexity is likely much more comparable for populations across regions than it is for attributed beneficiaries across smaller units, such as practices.

The results included in this chapter suggest that high-dual practices perform worse on a range of ACSCs in large part because of patient factors. Adjusting ACSCs for complexity narrows the performance gap between high-dual and other practices (see Simulation #3). CMS is already working to adjust the ACSCs included in MIPS for medical risk and steps should be taken to expedite this process.

This consideration meets most of the proposed policy criteria: adjusting only for what is beyond provider control; protecting providers from unfair financial stress (to the extent that worse performance on ACSCs by high-dual practices is due to unmeasured medical risk); encouraging reduction in disparities in access (to the extent that better risk-adjustment prevents practices from avoiding high social risk beneficiaries); and promoting transparency to facilitate consumer choice. It would also better-harmonize the measures with the Medicare Shared Savings Program, which recently finalized plans to move to a risk-adjusted ACSC measure.

**CONSIDERATION 3: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers. Attention should also be given to developing quality and outcome measures specifically designed for the practice setting.**

Given the significant differences seen between dual and non-dual individuals on the ACSC and readmissions measures, these metrics should be examined to determine if adding better measures of severity of illness, functional status, frailty, and/or medical complexity may explain some of the excess risk associated with dual enrollment.

Various within-practice differences may contribute to the poor performance of high-dual practices, including treatment bias. However, within-practice differences may also reflect unmeasured patient characteristics for which dual enrollment is a proxy. For example, dually-enrolled beneficiaries may be less likely to have their blood sugar adequately controlled than non-dually-enrolled beneficiaries within a given practice, because the dually-enrolled beneficiaries have higher rates of comorbidities like kidney or liver disease that make blood sugar more difficult to control. Dually-enrolled beneficiaries may be

more likely to be admitted for a urinary tract infection because they have higher levels of functional impairment that make caring for illness at home less feasible. Thus, adding measures of medical complexity, functional status, and/or frailty to quality measures used in the Physician VM program or in MIPS may help ensure that providers do not face undue financial stress, and reduce disincentives to caring for high-risk populations.

Attention should also be given to developing setting-specific quality and outcome measures. Currently, some of the measures in use in the VM program were developed in the hospital setting (readmissions) or broader outpatient setting (ACSCs), and may have lower levels of reliability or otherwise different statistical characteristics when applied to physician practices. As physician payment programs mature, having practice-specific measures may allow better distinctions in quality between physician groups.

### **STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

#### **CONSIDERATION 1: Consider providing additional payment adjustments for practices that disproportionately serve beneficiaries with social risk factors and achieve high quality, or specifically for achieving high quality in beneficiaries with social risk factors.**

Implementing a payment adjustment for practices serving beneficiaries with social risk factors that is similar to the adjustment available to practices with high-medical-risk beneficiaries would provide an opportunity to reward those practices that perform particularly well in these populations. An alternative design could instead reward practices that perform well specifically for beneficiaries with social risk factors, though measures to assess this would need development and testing. This may provide additional protection against any incentives that VM financial incentive model may create to avoid caring for socially high-risk beneficiaries. This consideration is consistent with the policy goals of protecting providers from unfair financial stress and encouraging reduction in disparities in quality, and outcomes.

#### **CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to practices that disproportionately serve beneficiaries with social risk factors to help improve quality and ensure they can successfully participate in the reporting required for the MIPS program, or to assist in moving toward alternative payment model (APM) participation.**

Since failure to participate was a major driver of penalties in the first year of the VM program, and since this disproportionately affected practices serving beneficiaries with social risk factors, improving



successful participation should be a focus for VM and may need to be a future focus for MIPS. Achieving this goal would reduce the number of providers that serve high-risk beneficiaries and receive a downward adjustment. This in turn could reduce disparities in access.

In the short term, CMS could use quality improvement or learning collaboratives that may exist within the VM support structure, to assist practices serving a high proportion of beneficiaries with social risk factors. Formal learning collaboratives and interdisciplinary collaboration have sometimes been associated with good outcomes in related areas of health care.<sup>20,21</sup>

One longer-term goal would be to better-understand whether or not the challenges associated with Physician VM Program participation differ between high-dual and other practices. A Report prepared for CMS summarized the results of interviews regarding PQRS participation (a precursor to VM).<sup>22</sup> Practices that did not participate in PQRS in 2013 cited a number of concerns including time and the difficulties of submitting measurements without an Electronic Medical Record. Some practices also requested additional technical assistance for the program. However, this Report did not include information on challenges specific to practices serving beneficiaries with social risk factors; it is plausible that reasons for non-participation may differ for these groups. Qualitative research that focuses on practices that care for beneficiaries with social risk factors would be critical to ensuring that these practices are as equipped as their peers to successfully participate in MIPS or an APM.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

The inclusion of innovative strategies to improve the care of beneficiaries with social risk factors might be one factor used to evaluate proposals for new APMs targeting ambulatory care, or the expansion of existing APMs.

**CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.**

Achieving good outcomes in beneficiaries with social risk factors may require more resources than achieving similar outcomes in beneficiaries without social risk factors. However, the costs and strategies for doing so are inadequately understood. Future research could examine the costs to practices of achieving good outcomes for beneficiaries with social risk factors and determine whether current payments, typically based only on differences in medical risk, adequately account for these differences in care needs.

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## SECTION 4: Dialysis Facility and Post-Acute Care Value-Based Purchasing Models

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Section Four examines dialysis facility and post-acute care value-based purchasing models. Specifically, in the dialysis setting, the End-Stage Renal Disease Quality Incentive Program (ESRD QIP), initiated in FY 2012, penalizes dialysis facilities whose performance on a set of quality measures falls below a threshold. This program, though currently based largely on process measures, will expand in coming years to include patient experience, infection rates, and outcome measures. In the post-acute setting, programs are under development but not yet fully implemented at a national level as of the writing of this Report. In the Skilled Nursing Facility (SNF) setting, a value-based purchasing (VBP) program will begin in 2019, based on performance on a SNF all-cause, all-condition hospital readmission measure. For home health agencies (HHAs), a national demonstration VBP program which includes measures of patient experience, quality, outcomes, safety, and costs of care has been launched, with the first payment adjustments scheduled to begin in calendar year 2018 based on calendar year 2016 performance data.

Therefore, across all three of these settings, the current value-based purchasing programs are either changing rapidly or not yet fully implemented. The chapters that follow explore each in turn, but readers should keep in mind that these programs in particular may warrant further analyses in the future as they evolve and/or enter the implementation phase.

# CHAPTER 11: The End-Stage Renal Disease Quality Incentive Program

## In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on the metrics that comprise the End-Stage Renal Disease Quality Incentive Program?*
- *Is there a relationship between facility social risk profile and performance on the metrics that comprise the program?*
- *Are facilities that serve a high proportion of beneficiaries with social risk factors more likely to receive penalties under this program?*

This chapter presents findings on the relationship between patient or facility social risk and performance under the End-Stage Renal Disease Quality Incentive Program (ESRD QIP).

## Key Findings:

- Beneficiaries with social risk factors have worse performance on many quality measures in the ESRD QIP, even within the same facilities.
- Facilities with a high proportion of beneficiaries with social risk factors were more likely to receive payment reductions. However, because so few facilities are penalized overall in the Quality Incentive Program, these significant relative differences in the likelihood of being penalized translate to small absolute differences in the number of facilities penalized.
- Measures that may be added to the program in future years are in areas where safety-net providers have traditionally performed more poorly.

## Strategies and Considerations for the ESRD QIP

SUMMARY OF STRATEGIES AND CONSIDERATIONS
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.
CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the ESRD QIP to assess and reward facility efforts to reduce health disparities.

CONSIDERATION 3: Prospectively monitor the financial impact of the ESRD QIP on facilities disproportionately serving beneficiaries with social risk factors.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

CONSIDERATION 1: The measures used in the ESRD QIP should continue to be examined to determine if adjustment for social risk factors is appropriate.

CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between facilities.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

CONSIDERATION 1: Consider providing additional financial incentives to reward facilities that achieve high quality or significant improvement for beneficiaries with social risk factors.

CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to facilities that disproportionately serve beneficiaries with social risk factors to improve quality and ensure they can successfully participate in the reporting required for the ESRD QIP.

CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.

CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.

## I. Introduction

### A. Background

End-Stage Renal Disease (ESRD) is a condition in which an individual's kidneys no longer work adequately, leading to the need for either kidney transplantation or chronic dialysis. ESRD qualifies individuals of all ages for Medicare; thus, a significant proportion of dialysis services in the U.S. are funded through Medicare. Currently, just under 1% of the Medicare population, or nearly 500,000 Medicare beneficiaries, has ESRD.

Dialysis facilities are paid a prospective payment for a bundle of renal dialysis services on a per treatment basis. Beginning in 2012, the ESRD Quality Incentive Program (QIP) linked a portion of this prospective payment to performance on a set of quality measures. For payment year (PY) 2015 (reflecting performance in calendar year 2013), performance was measured on 6 "clinical measures," which together constituted 75% of the total performance score (TPS): one measure of anemia management (whether facilities over-prescribe erythropoiesis-stimulating agents (ESAs) in managing beneficiaries' hemoglobin levels), three measures of dialysis adequacy (how well the dialysis has worked to rid the blood of toxins among three subpopulations of ESRD beneficiaries), and two measures of vascular access (whether the beneficiary uses a fistula, which is preferred, and whether the beneficiary has used a catheter for 90 days or longer, which is not preferred, for their dialysis sessions). On each, facilities receive the higher of achievement or improvement points.

Performance for PY2015 was also assessed on 4 "reporting measures," which made up the remaining 25% of the TPS: one measure requiring reporting of anemia management indicator values on claims, one measure requiring administration of a patient experience survey, one measure requiring reporting of mineral metabolism indicator values, and one measure requiring reporting of infection events to the Centers for Disease Control and Prevention's National Healthcare Safety Network. On these measures, facilities receive full points for full reporting, regardless of actual performance on the measure.

In coming years, the program will expand to include additional outcome and patient experience measures;<sup>1</sup> for example, for PY 2017 a standardized readmission ratio and a measure of bloodstream infection will be added to the clinical performance measures, and for PY 2018 a standardized transfusion ratio and a patient experience survey will be added to the clinical performance measures. A number of measures will also be added to the reporting measure list. The proposed inclusion of the readmission measure in particular has been controversial.<sup>2</sup>

To receive a TPS, a facility must receive a score on at least one clinical measure and at least one reporting measure; for the clinical measures, a facility must have 11 eligible beneficiaries to receive a score on that measure. The TPS is used to determine whether or not facilities receive a payment reduction. In payment year (PY) 2015, facilities scoring above 60 on the TPS received no payment reduction; facilities scoring 50 to 59 received an 0.5% reduction, 40 to 49 a 1.0% reduction, 30 to 39 a 1.5% reduction, and 0 to 29 a 2.0% reduction.



**B. Existing Research on Differences in Performance on the ESRD QIP based on Social Risk Factors**

Though little is known about how the ESRD QIP has financially impacted providers serving a high proportion of beneficiaries who are at high social risk, there is a significant body of research examining disparities in ESRD quality and outcomes based on social risk factors.

Both the likelihood of developing ESRD and quality of care for beneficiaries with established ESRD is also related to social risk factors. Black and Hispanic individuals, as well as individuals living in poverty, are up to three times as likely to develop ESRD.<sup>3-6</sup> Dialysis facilities serving high proportions of Black and Hispanic beneficiaries or located in neighborhoods with a high proportion of Black beneficiaries may have worse performance on quality measures.<sup>7-9</sup> Facilities with low performance on dialysis adequacy are more likely to have higher proportions of Black beneficiaries as well as beneficiaries from low-income neighborhoods.<sup>10</sup> In terms of specific metrics, Black and Hispanic beneficiaries are more likely to receive inadequate dialysis,<sup>11</sup> and less likely to dialyze via an arterio-venous fistula (AVF, the preferred vascular access type), with odds of 0.9 and 0.7 for doing so in a recent study.<sup>12</sup> Studies have raised questions about whether observed disparities are due to patient or facility factors, which has implications for performance measurement.<sup>10,13</sup>

On the other hand, while survival with chronic kidney disease is worse for Black and Hispanic beneficiaries compared to Whites,<sup>14</sup> studies have documented a survival advantage for Black and Hispanic beneficiaries after the onset of ESRD compared to White beneficiaries.<sup>15,16</sup> It has been argued that this may be due to differential biology in these groups, or differential response to therapy, but remains largely unexplained.

Finally, studies examining renal care for rural beneficiaries have not shown consistent differences in pre-ESRD or dialysis care compared to urban areas, with most studies showing generally similar outcomes and no differences in access to dialysis or transplantation.<sup>17-19</sup> However, truly remote rural beneficiaries (more than 100 miles from a dialysis facility) may face different challenges and have worse outcomes.<sup>20</sup>

**C. Limitations**

Similar to the other settings, the definitions of social risk that are used in this chapter are limited to those which are currently available in Medicare data. There may be other social risk factors that are equally or more important to consider that have not been addressed due to data limitations. Currently, the ESRD QIP includes a significant number of measures on which performance is uniformly high, including reporting-only measures. In future years, the program has proposed to implement more outcome measures; as new measures are added to the program, its scoring distribution and impact on dialysis facilities may change. In the ESRD QIP, many measures are collected at the beneficiary-month level; this adds significant computational complexity to modeling since both within-beneficiary and within-facility correlation must be taken into account. Therefore, the models run for this chapter differ somewhat from those constructed for analyses in other chapters, in that they are not pure within-facility models. Finally, data limitations precluded analyses of outcome measures that will be included in the ESRD QIP in the future, particularly the standardized readmissions measure – this is a new measure with a complex computational approach that could not be replicated with current data in a time frame

adequate to allow its inclusion in this chapter. This will be an important point for analysis in the coming years.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the measures that comprise the ESRD QIP. Next, it examines the performance of facilities serving beneficiaries with social risk factors on these measures, and then the performance of these facilities under the ESRD QIP payment reduction scheme. Finally, strategies and considerations for the ESRD QIP are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Facility Characteristics**

### **A. Beneficiary Characteristics**

To define social risk factors, the parameters outlined in Chapter 2 were followed, examining dually-enrolled beneficiaries, beneficiaries living in low-income ZCTAs, beneficiaries with disabilities, and Black, Hispanic, and rural beneficiaries. The ESRD patient population tends to be younger, but much more socially and medically complex, than Medicare beneficiaries as a whole. For example, median age in the dialysis population comprising these ESRD QIP measures in 2013 was 63, compared with over 70 in the FFS population, since ESRD can qualify a beneficiary for Medicare at any age. A strikingly higher proportion of ESRD beneficiaries were dually-enrolled, originally entitled to Medicare based on a disability, Black, and/or Hispanic compared to the FFS group. ESRD beneficiaries were less likely to live in a low-income ZCTA, and less likely to be in a rural location (Table 11.1). ESRD beneficiaries also had markedly higher rates of nearly all major comorbidities captured in the hierarchical condition categories (HCCs), including six-fold higher rates of congestive heart failure and 15-fold higher rates of diabetes with kidney or circulatory complications (Table 11.1):

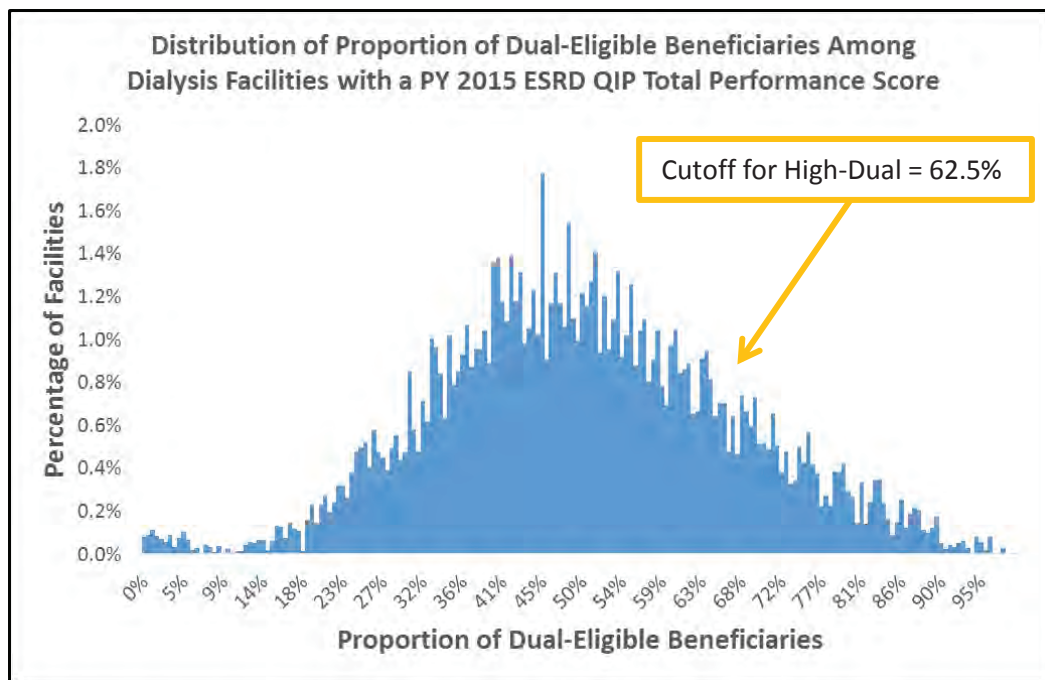
Table 11.1: Patient Characteristics

	Fee-for-Service Medicare *	All Dialysis	Dually-enrolled	Originally Entitled to Medicare Based on Disability	Black	Hispanic	Low-Income ZCTA	Rural
Median Age	71	63	58	61	60	61	61	64
Male	42.8%	54.4%	49.4%	55.2%	52.0%	56.5%	52.6%	52.8%
Dually-enrolled	18.8%	50.0%	100%	58.7%	58.9%	65.7%	63.4%	49.6%
Originally Entitled to Medicare Based on Disability	23.3%	29.4%	34.5%	100%	34.6%	26.5%	32.9%	33.0%
Black	10.1%	37.6%	44.2%	44.3%	100%	0% <sup>†</sup>	52.5%	31.0%
Hispanic	3.8%	15.9%	20.9%	14.3%	0% <sup>†</sup>	100%	25.4%	8.8%
Low Income ZCTA	21.3%	19.8%	25.1%	22.1%	27.6%	31.6%	100%	23.8%
Rural	16.8%	10.8%	10.7%	12.1%	8.9%	6.0%	13.0%	100%
Select Comorbidities								
Congestive Heart Failure	10.7%	64.5%	65.5%	69.0%	63.8%	60.3%	64.1%	65.2%
Diabetes With Renal Or Peripheral Circulatory Manifestation	3.8%	58.5%	60.9%	66.5%	55.7%	72.4%	61.1%	56.7%
Vascular Disease	12.2%	44.6%	45.0%	45.4%	43.4%	45.3%	44.9%	43.0%
Heart Arrhythmias	13.2%	36.1%	32.3%	36.0%	29.9%	27.6%	30.7%	36.4%
Chronic Obstructive Pulmonary Disease	11.2%	33.9%	34.7%	38.5%	29.3%	25.3%	32.8%	38.6%
Protein-Calorie Malnutrition	1.3%	25.4%	27.1%	27.7%	26.0%	23.1%	26.0%	23.0%
Ischemic Or Unspecified Stroke	3.1%	15.4%	17.2%	18.5%	17.2%	14.5%	15.8%	13.8%
Angina Pectoris/Old Myocardial Infarction	4.2%	14.6%	14.3%	16.2%	13.2%	13.5%	14.1%	15.6%
*: Comparison is the group of FFS beneficiaries included in year 1 of the Physician Value-based payment modifier program.								
†: Black and Hispanic are mutually exclusive in the current Medicare race and ethnicity data.								

## B. Facility Characteristics

To examine facility performance, facilities in the top 20% of each social risk factor were categorized as the facility group of interest (for example, high-dual, high-disabled, etc.). Figure 11.1 shows the distribution of dually-enrolled beneficiaries across facilities; the cutoff to be labeled a “high-dual” facility was 62.5% dual:

**Figure 11.1: Distribution of dually-enrolled beneficiaries across dialysis facilities**



Distributions of the other social risk factors can be found in the Appendix to this chapter.

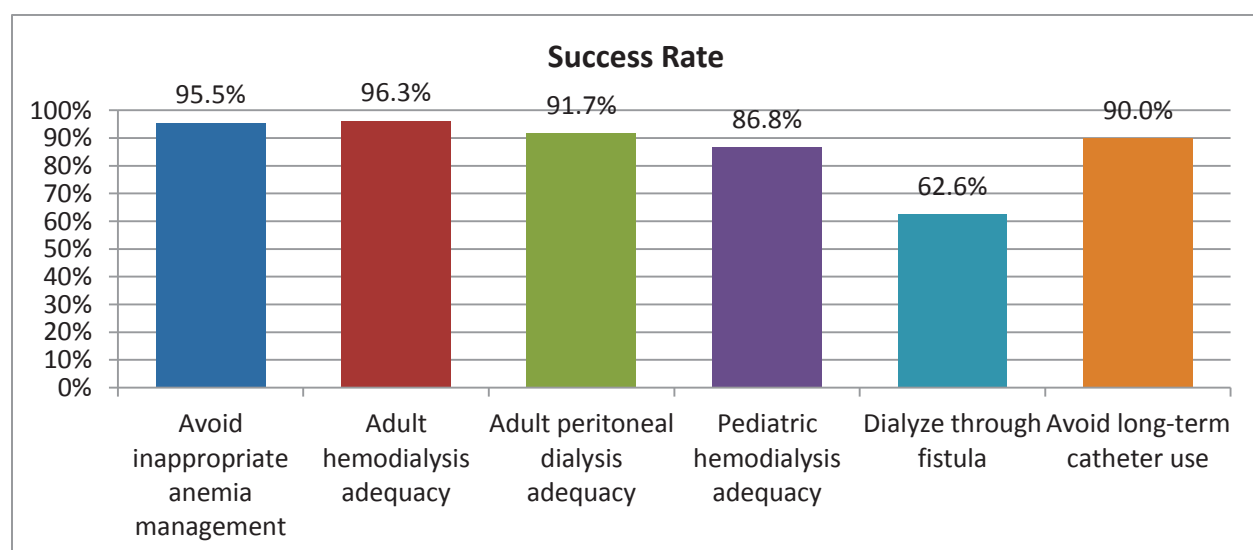
There were 5651 dialysis facilities included in the analytic sample; this was after excluding facilities that were either too small or too new to have quality information available for scoring in the PY 2015 ESRD QIP. Overall, the average number of beneficiaries served in a facility was 85; rural providers were smaller with an average of 62 beneficiaries served (Table 11.2). Most facilities were for-profit in nature and belonged to large corporations (DaVita, etc.). Unsurprisingly, high-dual facilities had a particularly high proportion of dually-enrolled beneficiaries, at 73%; similarly, high-Black (82% Black), high-Hispanic (51% Hispanic), and rural (48% rural) facilities had high proportions of these types of beneficiaries. There was significant overlap between the social risk groups of interest, with higher-than-average levels of dually-enrolled beneficiaries at each of the other facility types examined with the exception of rural providers, and higher-than-average levels of low-income ZCTA beneficiaries in each of the other facility types examined.

**Table 11.2: Facility Characteristics**

	All	High-Dual	High-Disabled	High-Black	High-Hispanic	Low Income	Rural Provider
<b>N facilities</b>	5651	1131	1130	1130	1131	1131	1342
<b>N beneficiaries</b>	85	90	72	92	94	82	62
<b>N beneficiary-months</b>	643	709	554	734	724	671	485
<b>For-Profit</b>	87.1%	87.1%	88.0%	90.8%	91.6%	89.4%	81.4%
<b>Large Corporation</b>	72.6%	65.9%	75.4%	79.0%	68.4%	76.2%	71.7%
<b>Patients Served</b>							
<b>% Dually-enrolled</b>	49.7%	73.0%	54.8%	56.8%	59.0%	60.4%	49.8%
<b>% Originally Entitled to Medicare Based on Disability</b>	29.4%	29.8%	41.9%	33.4%	26.1%	33.2%	33.2%
<b>% Black</b>	37.6%	44.3%	50.7%	82.0%	18.4%	47.4%	31.8%
<b>% Hispanic</b>	15.7%	30.4%	6.8%	2.7%	51.2%	25.1%	8.3%
<b>% Low Income ZCTA</b>	19.6%	35.7%	28.9%	32.5%	27.8%	53.8%	25.3%
<b>% Rural</b>	10.8%	7.7%	19.5%	10.8%	5.0%	20.0%	48.2%
ZCTA=ZIP code tabulation area							

### III. Beneficiary social risk and Outcomes under the ESRD QIP

Overall performance on the quality measures high across measures, with four of the six clinical measures demonstrating performance greater than 90% (Figure 11.2):

**Figure 11.2: Average performance on ESRD QIP clinical quality measures**

The relationship between beneficiary social risk and 5 of the 6 measures used in the PY 2015 ESRD QIP was examined (sample size for the sixth measure, pediatric dialysis adequacy, was too small to examine across facility or patient types). Because data are collected at the beneficiary-month level, a binomial model with an overdispersion factor to account for within-beneficiary correlation was used; in additional models, a facility effect was included to account for within-facility correlation (please see Technical Appendix for full details). Note that for some measures in this program, higher is better (dialysis adequacy, fistula use), while for others, higher is worse (inappropriate anemia management, long-term catheter use).

When the quality measures were analyzed, significant differences in performance by social risk were apparent. Raw performance rates for each measure can be found in the Appendix; odds ratios are shown below. Dually-enrolled beneficiaries did worse on all five measures, and beneficiaries with disabilities worse on three; findings for the other groups were more mixed (Table 11.3):

**Table 11.3: PY 2015 ESRD QIP Quality Measures and Social Risk Factors, Total Odds Ratios**

	<b>Inappropriate Anemia Management (lower is better)</b>	<b>Adult Hemodialysis Adequacy (higher is better)</b>	<b>Adult Peritoneal Dialysis Adequacy (higher is better)</b>	<b>Fistula Use (higher is better)</b>	<b>Long-term Catheter Use (lower is better)</b>
<b>Dually-enrolled</b>	<b>1.08</b>	<b>0.87</b>	<b>0.91</b>	<b>0.82</b>	<b>1.14</b>
<b>Disability</b>	1.00	<b>0.72</b>	0.95	<b>0.82</b>	<b>1.16</b>
<b>Black</b>	<b>0.97</b>	<b>0.88</b>	<b>0.84</b>	<b>0.65</b>	<b>0.91</b>
<b>Hispanic</b>	<b>1.10</b>	<b>1.48</b>	0.92	<b>1.35</b>	<b>0.78</b>
<b>Low Income ZCTA</b>	<b>1.03</b>	0.99	1.01	<b>0.95</b>	<b>0.92</b>
<b>Rural</b>	0.99	<b>0.87</b>	0.99	1.01	<b>1.09</b>
<b>Bolded comparisons are significant at <math>p &lt; 0.05</math>.</b>					

When a facility effect was added to the models to account for non-independence of outcomes among beneficiaries treated at the same facility, the results were largely unchanged: dually-enrolled beneficiaries did worse on all 5 of the measures, rural beneficiaries did worse on four, and beneficiaries with disabilities did worse on three. Patterns remained mixed for Black and Hispanic beneficiaries, as well as beneficiaries living in low-income ZCTAs, who did better on some measures and worse on others.

Next, all social risk factors were combined into a single model to determine whether there was a dominant social risk factor predictive of poor outcomes in this group. These models suggested that dual enrollment was the most powerful predictor; dually-enrolled beneficiaries continued to have worse performance on all five measures; beneficiaries with disabilities had worse performance on 3/5 measures as well (Table 11.4):

**Table 11.4: PY 2015 ESRD QIP Quality Measures, including all Social Risk Factors in same model**

	<b>Inappropriate Anemia Management (lower is better)</b>	<b>Adult Hemodialysis Adequacy (higher is better)</b>	<b>Adult Peritoneal Dialysis Adequacy (higher is better)</b>	<b>Fistula Use (higher is better)</b>	<b>Long-term Catheter Use (lower is better)</b>
<b>Dually-enrolled</b>	<b>1.08</b>	<b>0.87</b>	<b>0.94</b>	<b>0.86</b>	<b>1.20</b>
<b>Disabled</b>	0.99	<b>0.74</b>	0.97	<b>0.87</b>	<b>1.15</b>
<b>Black</b>	<b>0.97</b>	1.01	<b>0.83</b>	<b>0.69</b>	<b>0.82</b>
<b>Hispanic</b>	<b>1.07</b>	<b>1.49</b>	<b>0.90</b>	<b>1.16</b>	<b>0.70</b>
<b>Low Income ZCTA</b>	<b>1.02</b>	1.00	1.04	1.01	<b>0.93</b>
<b>Rural</b>	0.99	<b>0.90</b>	1.00	0.99	<b>1.05</b>
<b>Bolded comparisons are significant at p&lt;0.05.</b>					

These findings suggest a significant difference in performance based on social risk, even after accounting for correlation of outcomes within facilities. Beneficiaries with higher social risk, particularly dually-enrolled beneficiaries, experienced worse outcomes than beneficiaries with lower social risk on multiple measures. The finding that dual enrollment, which serves as a proxy for an individual's income, was more powerfully related to outcomes than living in a low-income neighborhood, is consistent across settings examined in this report.

#### **IV. Facility Social Risk and Outcomes under the ESRD QIP**

Next, analyses were conducted to determine whether there was a facility effect. As outlined in Chapter 2, facilities in the top 20% of each social risk factor were considered to be the groups of interest. These were again beneficiary-level models adjusting for correlation within beneficiary and within facility – here, since the predictor of interest was a facility characteristic, only the models that take within-facility correlation into account are shown.

By facility, the results were less striking than those for beneficiary characteristics; for most facility types, performance was mixed. High-Hispanic dialysis facilities were the exception, performing better on 3/5 measures (Table 11.5):



**Table 11.5: PY 2015 ESRD QIP Quality Measures and Facility Level of Social Risk Factors**

Facility Type	Inappropriate Anemia Management (lower is better)	Adult Hemodialysis Adequacy (higher is better)	Adult Peritoneal Dialysis Adequacy (higher is better)	Fistula Use (higher is better)	Long-term Catheter Use (lower is better)
High-Dual	1.00	0.96	0.93	<b>0.93</b>	<b>0.93</b>
High-Disabled	1.09	<b>0.91</b>	1.08	<b>0.89</b>	1.02
High-Black	0.90	1.07	0.99	<b>0.72</b>	<b>0.87</b>
High-Hispanic	0.96	<b>1.18</b>	1.05	<b>1.17</b>	<b>0.84</b>
Low Income	0.96	1.09	1.00	<b>0.90</b>	<b>0.86</b>
Rural Provider	<b>1.15</b>	<b>0.92</b>	<b>1.36</b>	<b>1.05</b>	0.98
Bolded comparisons are significant at $p < 0.05$ .					

Multivariate models did not qualitatively alter these patterns of performance.

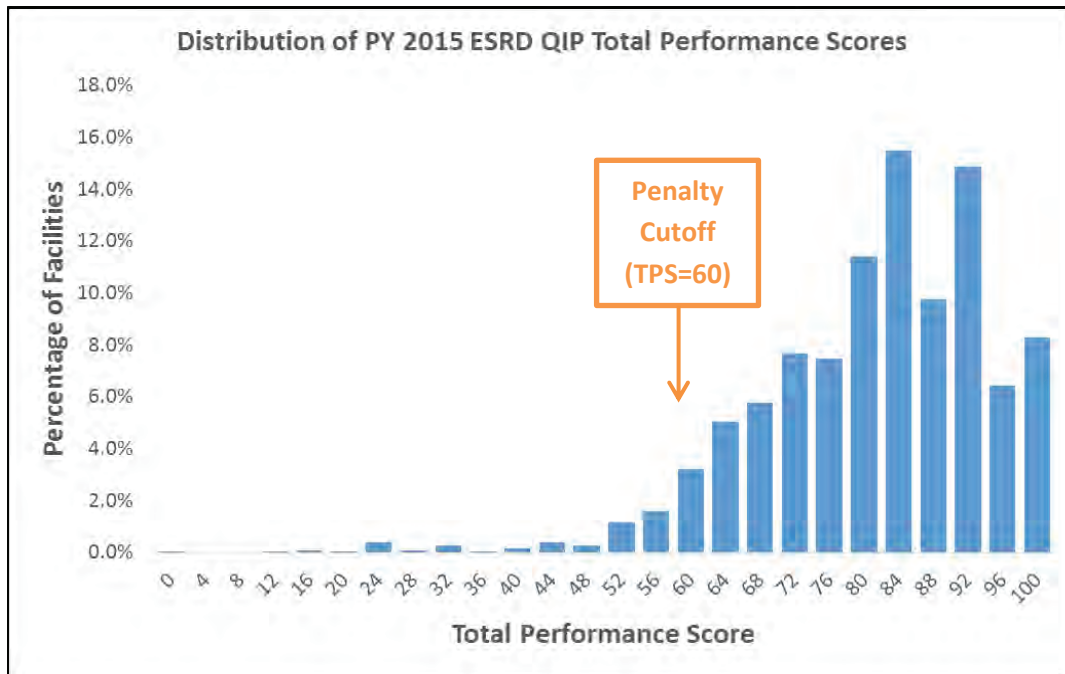
Additional analyses were conducted in which both patient-level and facility-level factors were included in a single model to determine the degree to which they were independent of each other; these results were similar and can be found in the technical appendix.

Therefore, these analyses suggest that there are significant differences in ESRD measure performance based on beneficiary social risk, with dually-enrolled beneficiaries, beneficiaries with disabilities, and rural beneficiaries less likely to meet the quality measures that were examined. Findings at the facility level were more mixed, with no facility type performing more poorly than average on more than 2 of the 5 clinical measures.

## **V. Performance on the ESRD QIP for Facilities with High Levels of Social Risk Factors**

The measures in the ESRD QIP are assessed using both achievement and improvement scores, such that facilities can earn points either for meeting achievement thresholds or for improving their performance relative to the previous calendar year. Therefore, the performance patterns above may not translate directly to the program scores, since high scores may reflect either high performance or high improvement.

In PY2015, overall performance under the ESRD QIP was good relative to the penalty cutoff, with an average total performance score of 81.0 and a long left tail (Figure 11.3):

**Figure 11.3: Distribution of PY 2015 ESRD QIP Total Performance Scores**

Facilities with high proportions of socially-at risk beneficiaries had relatively similar scores on most measures overall, and on total performance score. The individual measures described above are combined into composites for the purposes of scoring, and these are shown below; reporting-only measures together comprise 25% of the total performance score, but performance is uniformly high (on average, 9.5-9.9 points out of ten) and thus these measures are only displayed in the Appendix. Overall, differences in performance between facility types on the quality measures were small, with the exception of fistula use (Table 11.6a):

**Table 11.6a: Measure Scores for PY2015**

Facility Type	Inappropriate Anemia Management	Adult Hemodialysis Adequacy	Adult Peritoneal Dialysis Adequacy	Fistula Use	Long-term Catheter Use
National Average	9.5	6.8	7.2	6.1	6.4
High-Dual	<b>9.4</b>	7.0	6.6	<b>5.6</b>	6.5
High-Disabled	9.5	6.8	7.1	<b>5.6</b>	6.5
High-Black	9.5	6.8	6.9	<b>4.4</b>	<b>6.8</b>
High-Hispanic	9.5	7.0	7.1	<b>6.6</b>	<b>6.8</b>
Low Income	9.5	<b>7.1</b>	7.3	<b>5.5</b>	<b>6.9</b>
Rural Provider	<b>9.6</b>	<b>6.9</b>	7.9	<b>6.4</b>	<b>6.7</b>

Bolded comparisons are significant at  $p < 0.05$ .

Differences in overall performance were also small, with high-Black facilities demonstrating statistically significantly lower total performance scores on average, and low-income-serving and rural facilities demonstrating statistically significantly higher total performance scores (Table 11.6b):

**Table 11.6b: Total Scores for PY2015**

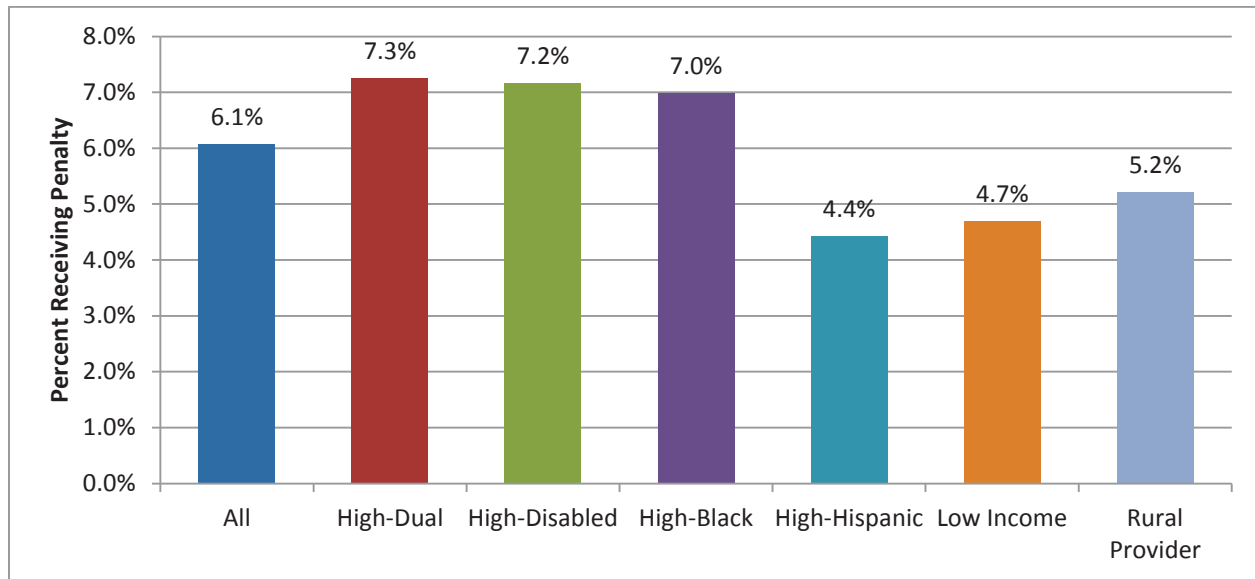
Facility Type	Overall Clinical	Overall Reporting	Total Performance
National Average	7.5	9.8	80.8
High-Dually-enrolled	7.4	<b>9.7</b>	80.2
High-Disabled	7.4	<b>9.7</b>	79.9
High-Black	<b>7.3</b>	9.8	<b>79.5</b>
High-Hispanic	<b>7.7</b>	9.8	82.4
Low Income	<b>7.6</b>	9.8	<b>81.6</b>
Rural Provider	<b>7.7</b>	9.8	<b>82.0</b>
Bolded comparisons are significant at $p < 0.05$ .			

As described above, facilities scoring below 60 points were eligible to receive a penalty in PY 2015. In PY 2015, only 343 (6.1%) of facilities received a payment reduction in 2015 out of 5,651 facilities treating a sufficient number of beneficiaries to be eligible to receive a total performance score, with most of those receiving only a 0.5% reduction and very few the maximum reduction of 2.0%:

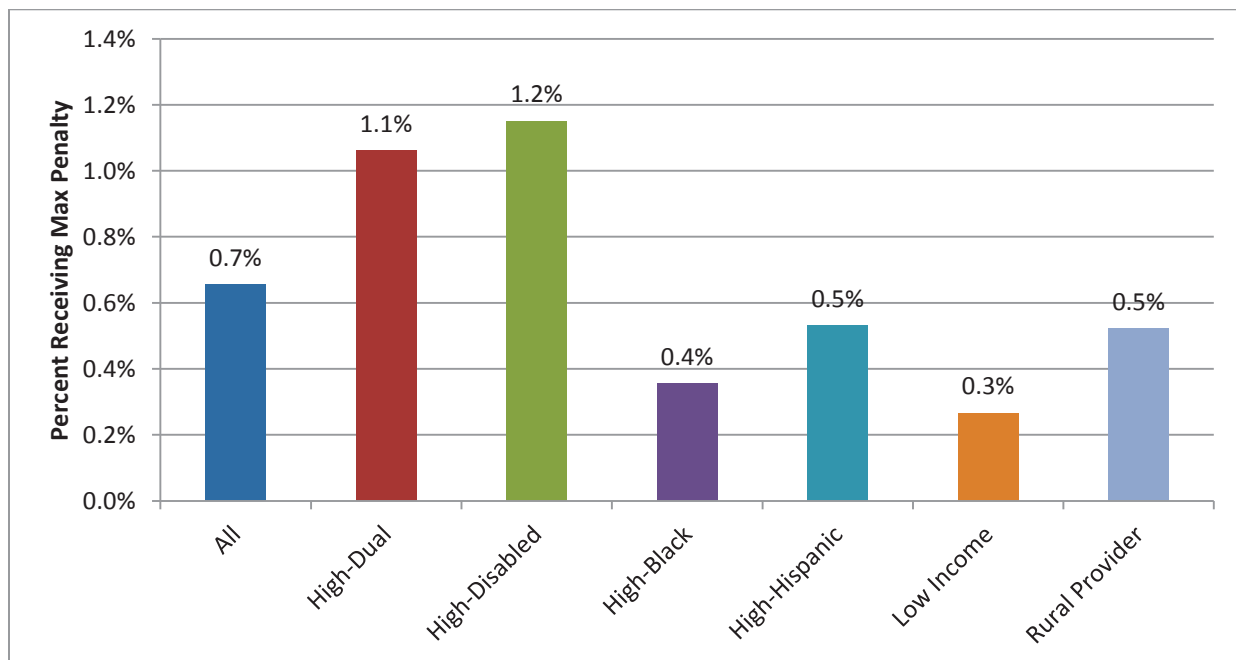
**Table 11.7: PY 2015 ESRD QIP Payment Reductions**

Payment Reduction	Number of Facilities	% of Facilities
No Reduction*	5308	93.9%
0.5% Payment Reduction	242	4.3%
1.0% Payment Reduction	41	0.7%
1.5% Payment Reduction	23	0.4%
2.0% Payment Reduction	37	0.7%
*=Does not include the 488 facilities too small or too new to the program to receive a total performance score		

Overall, facilities that served a high proportion of dual, disabled, or Black beneficiaries were more likely to be penalized; high-Hispanic facilities, those with a high proportion of beneficiaries residing in low-income areas, and rural facilities were less likely to be penalized (Figure 11.4).

**Figure 11.4: Likelihood of Penalties by Facility Type**

Facilities with a high proportion of dual or disabled beneficiaries were also significantly more likely to receive the maximum penalty of 2%, and thus were over-represented in the maximum penalty group (comprising 32.4% of the max penalty group and 35.1% of this group, respectively. However, the absolute numbers are small: only 37 facilities in total received the 2% penalty, 12 of which were high-dual and 13 of which were high-disabled (Figure 11.5):

**Figure 11.5: Likelihood of Maximum (2%) Penalties by Facility Type**

Therefore, though differences in performance were small, these translated to meaningful differences in the likelihood of penalties and the likelihood of maximum penalties for facilities with a high proportion of socially-at risk beneficiaries, particularly those who are dually-enrolled and those with disabilities.

## VI. Performance on Measures in Star Ratings by Facility Social Risk

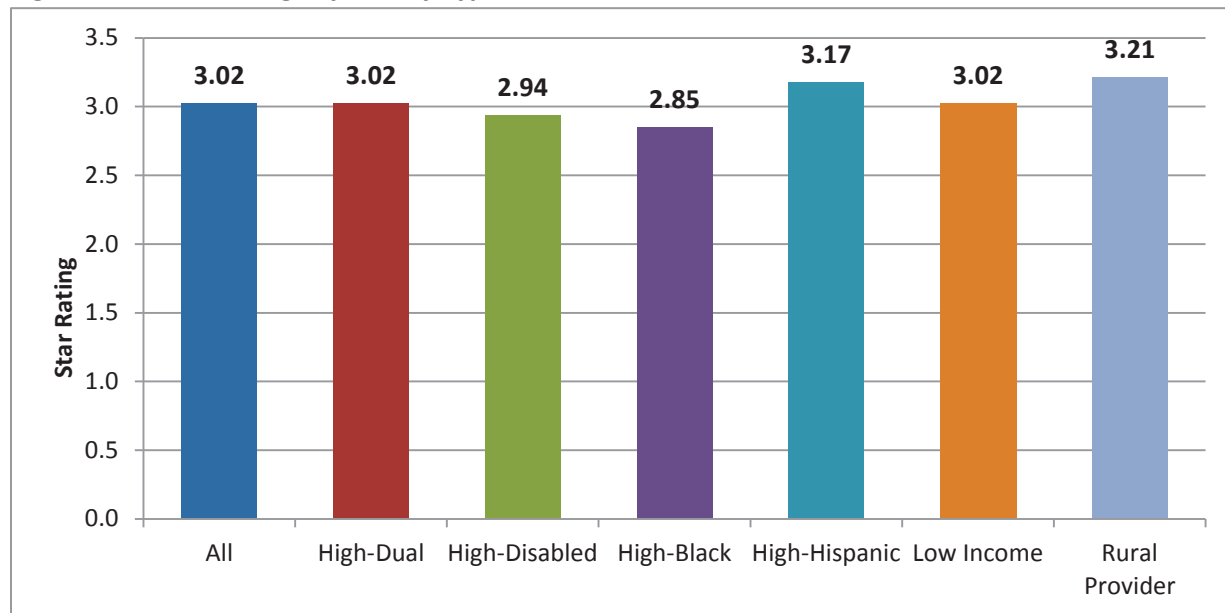
Though not included in the current ESRD QIP, there are additional metrics currently included in the Dialysis Facility Compare online rating program. Specifically, the Standardized Readmission Ratio was added in PY 2017 and the Standardized Transfusion Ratio will be added in PY 2018. Therefore, facility performance on these metrics during the same time period as performance on the ESRD QIP measures (referred to by the calendar year of reporting (CY) rather than payment year (PY)) was also examined. Of note, the standardized mortality ratio measure, which is in the star ratings though not included in the ESRD QIP, is currently adjusted for race; the measure is adjusted for race because Black beneficiaries are significantly less likely to die once they are on dialysis, as outlined in the background section above. The adjustment of this measure for race has been the subject of some controversy.

**Table 11.8: Standardized Ratio Measures for CY 2015 Performance Measure Period**

Facility Type	Standardized Hospitalization Ratio	Standardized Transfusion Ratio	Standardized Mortality Ratio	Standardized Readmission Ratio
National Average	1.00	0.99	1.03	1.00
High-Dual	1.01	<b>1.03</b>	<b>1.06</b>	<b>1.03</b>
High-Disabled	1.01	0.98	<b>1.08</b>	<b>0.98</b>
High-Black	0.99	<b>1.02</b>	<b>1.06</b>	<b>1.03</b>
High-Hispanic	1.00	1.00	<b>1.05</b>	1.00
Low Income	<b>0.95</b>	<b>0.97</b>	<b>1.08</b>	<b>0.94</b>
Rural Provider	<b>0.87</b>	<b>0.90</b>	1.03	<b>0.90</b>
Bolded comparisons are significant at $p < 0.05$ .				

On these metrics, like those which are currently included in the program, low-income ZCTA and rural providers tended to have slightly better performance overall. On the mortality measure in particular, all of the facilities serving beneficiaries with social risk factors with the exception of rural performed significantly worse than their counterparts.

Performance on these measures is combined with performance on many of the measures from the ESRD QIP above to create a total Star Rating. Analyses revealed fairly minimal differences in average Star Rating by facility type, though high-disabled and high-Black facilities performed more poorly than average, and high-Hispanic and rural facilities performed better than average (Figure 11.6):

**Figure 11.6: Star Ratings by Facility Type**

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

In sum, these analyses demonstrated that there are significant differences in performance on many of the quality measures included in the ESRD QIP, and that these differences appear to be associated with beneficiary social risk factors rather than facility factors. Because these measures are not clinically risk-adjusted, these differences may be driven by social risk, or by higher levels of medical risk in beneficiaries identified as having important social risk factors.

However, because of the way the ESRD QIP is currently constructed, only about 6% of facilities receive a financial penalty. Therefore, significant differences in performance between facilities with high versus low levels of social risk translate into very small absolute differences in the risk of being penalized.

### B. Policy Analysis, Strategies, and Considerations

Policy options are simulated, and weighed against the policy criteria outlined in Chapter 1 to ultimately inform strategies and considerations for accounting for social risk.. Those policy criteria are reiterated in Table 11.9:

**Table 11.9: Policy Criteria**

<b>Policy Criteria</b>
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

How these criteria are weighed by policymakers could differ. For example, some may feel that protecting providers from unfair financial stress is the most important criterion, and may be willing to adjust for factors under providers' control or negatively impact transparency to achieve that goal. On the other hand, some may feel that transparency is the most important criterion, and argue that avoiding financial stress for providers or promoting delivery system reform are less important policy considerations.

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors.

#### **STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

#### **CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.**

Measurement is a key component of both quality improvement in general and the provision of high-quality care in beneficiaries with social risk factors in particular.<sup>21</sup> The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as providers seek to reduce disparities and improve care for these groups to the greatest degree possible.

However, currently, there are areas in which data limitations make calculating and reporting performance for at-risk subgroups difficult. For measures currently collected on only a sample of patients, such as those related to patient experience, a strategy should be developed to capture data that would allow calculation and reporting of performance by important subgroups. This strategy would allow the Department and facilities, as well as consumers, to better-understand who performs well for dually-enrolled beneficiaries and where there are particular areas for targeted improvement. This is consistent with the policy goal of encouraging reductions in disparities in quality and outcomes, and also promotes transparency to facilitate consumer choice.



Alternate sampling methods may be necessary for stratified reporting for measures in which sample size is currently too small. Such methods could include stratified samples rolled over multiple measurement periods, for example.

When adequate data are available, key quality and resource use measures stratified by social risk should be developed and considered for dialysis facility feedback and/or public reporting, so that facilities, policymakers, and consumers can see and address important disparities in care. Reductions in disparities might be more easily achieved if measures were stratified so as to allow CMS and clinicians to track and address differences in performance on dialysis quality measures for socially-at risk beneficiaries. Particularly as the program moves increasingly to measures that, in other settings, have been shown to be particularly challenging for providers serving beneficiaries with social risk factors (patient experience and infection rates, for example), tracking group-specific performance may be a critical component of identifying disparities early and targeting them appropriately. Better monitoring of disparities could also promote consumer choice through greater transparency.

**CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the ESRD QIP to assess and reward facility efforts to reduce health disparities.**

The report on best practices for socially at risk beneficiaries from the National Academies of Sciences, Engineering, and Medicine recognized the prioritization of equity as a key strategy for health care organizations to deliver high-quality care to beneficiaries with social risk factors.<sup>21</sup> One way to prioritize equity is to provide targeted payment adjustments linked to equity. This may be achieved by adding a health equity measure or domain to existing programs.

A measure or domain for health equity could be added to the ESRD quality metrics to provide an explicit incentive and expectation of reducing health disparities for participants in the ESRD QIP. As there are no currently in-use health equity measures in the Medicare programs, this will require development and testing, and is not feasible in the short term. A measure of health equity may play an important role in ensuring that pay-for-performance programs help to incent, rather than disincent, improving care for beneficiaries with social risk factors. This approach would align with the policy criterion of encouraging reduction of disparities.

Specific approaches or measure(s) related to health equity have not been evaluated; however, a health equity domain could include performance on measures of disparity reduction, performance on outcomes for beneficiaries with social risk factors, or structural measures including systems practices that address the needs of beneficiaries with social risk factors. However, measures that would comprise such a domain have not been developed, and would need to be carefully constructed, tested, and validated prior to use.

**CONSIDERATION 3: Prospectively monitor the financial impact of the ESRD QIP on providers disproportionately serving beneficiaries with social risk factors.**

Prospectively monitoring the performance and financial impact of the ESRD QIP on providers serving a large proportion of beneficiaries with social risk factors is critical, including any unintended consequences of the program. This is particularly important as the program expands to include patient experience measures, infection measures, and additional outcome measures, on which dually-enrolled beneficiaries may have worse outcomes than their non-dually-enrolled peers.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: The measures used in the ESRD QIP should continue to be examined to determine if adjustment for social risk factors is appropriate.**

There are a broad range of measures in the ESRD QIP, with even more to be added in future years. There is no over-arching recommendation in terms of adjusting or not adjusting these measures; instead, each should be considered in terms of the empirical relationship between social risk and outcomes and the pros and cons of such adjustment.

There are arguments both for and against adjustment of quality measures (and resource use measures, though none are currently included in the ESRD QIP). Adjusting for social risk factors in the measures themselves risks masking modifiable disparities in care or depending on how such adjustment were implemented, excusing providers delivering low-quality care to at-risk populations. Adjustment could also negatively impact transparency for consumers. Further, making changes to the current program or program measures to address issues of equity around social risk could potentially be a large burden to facilities and to CMS but would have little impact on penalties. On the other hand, failing to adjust where a relationship exists between the social risk factor and the outcome that is beyond the provider's control risks inappropriately penalizing providers, and potentially creating incentives for providers to limit access to care for beneficiaries perceived to be at high risk of adverse outcomes.

Currently, the only ESRD measure that is adjusted for social risk is the standardized mortality ratio. This measure is not included in the ESRD QIP at this time. The mortality measure is adjusted for race because Black beneficiaries have a lower risk of death during dialysis than non-Black beneficiaries. However, there are many other measures across Medicare's payment programs on which Black beneficiaries have significantly higher risk of poor outcomes, and those have not typically been adjusted for race. This measure should be re-examined in the context of current discussions around social risk. In terms of the policy criteria, this consideration could serve both to reduce disparities and promote transparency to facilitate consumer choice.

**CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between facilities.**

Measures used in the ESRD QIP should be re-examined to determine if additional medical or social risk factors – in particular, functional status and measures of disease severity – could be added to the models to improve accuracy and fairness when applied to dialysis facilities. Dually-enrolled beneficiaries have health and social needs that may be more substantial and require more resources to address than non-dually-enrolled beneficiaries, such as lack of family or caregiver support, functional or cognitive limitations, and greater medical complexity. Thus, enhancing risk adjustment as feasible can help ensure that providers do not face undue financial stress, and reduce disincentives to caring for high-risk populations.

Particularly given that current data indicate that many of the facilities that serve high-risk populations may have worse performance when more outcome measures are added to the program, these measures should be explored further as outlined above.

### **STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives to reward facilities that achieve high quality or significant improvement for beneficiaries with social risk factors.**

Achievement and/or improvement in high-risk populations should be rewarded, and this could be done by adding targeted payment adjustments to existing value-based purchasing programs.

An additional payment adjustment could be created for facilities achieving high quality and serving a particularly socially at-risk population, as modeled above. Alternatively, specific payment adjustments could reward high performance and/or significant improvement in socially at-risk beneficiaries, regardless of the demographic makeup of the facility at which they receive care. This consideration has precedent in the Physician Value-based payment modifier Program and may provide additional protection against any incentives that the shared savings model may create to avoid caring for high-risk beneficiaries. This consideration is also consistent with the policy goals of protecting providers from unfair financial stress and encouraging reductions in disparities in quality and outcomes.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to facilities that disproportionately serve beneficiaries with social risk factors to improve quality and ensure they can successfully participate in the reporting required for the ESRD QIP.**

The majority of the dialysis facilities that received the full negative payment adjustment were likely those which failed to report on many measures, since the scores were too low to be explained by poor measure performance alone. As these facilities disproportionately cared for beneficiaries with social risk factors, targeting efforts at those facilities to improve their ability to report quality and outcomes – particularly given that it can be very difficult to improve what one can’t measure – may be a critical component of improving the quality of care delivered to at-risk populations and at reducing the financial stress they may experience due to failure to report.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

It is also feasible that demonstration programs, such as the recently-launched Comprehensive ESRD Care Model from CMMI, could help Medicare learn more about what types of care might achieve the best outcomes for ESRD beneficiaries. For example, demonstration programs could include consideration of targeted interventions for dually-enrolled individuals, modeled on the successes found in Medicare Advantage plans that have focused on integrating benefits and supports across Medicare and Medicaid to support beneficiaries with social risk factors.<sup>22,23</sup> Dialysis facilities provide very frequent care to their beneficiaries, and therefore may actually represent a particularly viable “medical home” from which additional support services could be effectively delivered. Given that there is a growing body of evidence supporting care coordination, social work, visiting nurse, and patient engagement/self-management programs to help reduce admissions and readmissions for high-risk beneficiaries,<sup>24</sup> these services could be explored for through demonstration programs for appropriate groups.

**CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.**

Finally, payment policies should be examined in light of experience in other settings with beneficiaries with social risk factors. The ESRD setting pays in a bundled fashion based in part on medical risk, but does not provide additional payments for providers based on the social risk profile of its beneficiaries, though this is done in some other care settings – most notably the DSH payments awarded to hospitals based on the social risk profile of hospitalized individuals. It is currently unknown whether or not payments based on medical risk adequately account for any differences in the costs of providing ESRD care to socially-at risk individuals. Additional analyses should examine this issue.

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## CHAPTER 12: Skilled Nursing Facilities

### In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on quality measures in the Skilled Nursing Facility (SNF) setting?*
- *Is there a relationship between SNF social risk profile and performance on these metrics?*

This chapter presents findings on the relationship between beneficiary or facility social risk and performance under readmission measures relevant to the skilled nursing facility (SNF) setting.

### Key Findings:

- Analyses showed that beneficiaries at high social risk were much more likely to be re-hospitalized during the first 30 days of a SNF stay. However, after applying the risk adjustment variables to the model, these effects were significantly smaller, and the effect of dual enrollment disappeared.
- Similarly, by raw readmission rates, being at a SNF with a high proportion of dually-enrolled, low-income, Black, or Hispanic beneficiaries, or beneficiaries with disabilities, was associated with an increased likelihood of re-hospitalization during the first 30 days of a SNF stay, regardless of a beneficiary's social risk. This result decreased with CMS risk adjustment, but remained significant.
- The exception to these findings was for rural beneficiaries and rural SNFs, where readmission rates were lower than in urban settings, but results were not statistically significant.
- When beneficiary and provider social risk factors were included in a single model, the provider level effect was in general larger than the beneficiary level effect.

### Strategies and Considerations for the SNF setting

SUMMARY OF STRATEGIES AND CONSIDERATIONS
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider developing SNF readmission measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors, where feasible.
CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the SNF VBP program to assess and reward facility efforts to reduce health disparities.



CONSIDERATION 3: Consider increasing the number of metrics included in SNF VBP to be more reflective of a broader agenda for improving quality in this setting.

CONSIDERATION 4: As SNF VBP is implemented, consider prospectively monitoring for potential unintended consequences. Specifically, the potential for reducing access to care for beneficiaries perceived to be at high risk of readmission, such as dually-enrolled beneficiaries, beneficiaries with disabilities or individuals with multiple comorbidities, should be tracked.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

CONSIDERATION 1: The SNF readmission measure should continue to be examined to determine if adjustment for social risk factors is appropriate.

CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

CONSIDERATION 1: Consider providing additional financial incentives to reward skilled nursing facilities that achieve high quality or significant improvement for beneficiaries with social risk factors.

CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to skilled nursing facilities that disproportionately serve beneficiaries with social risk factors to help improve quality.

CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.

CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.

## I. Introduction

### A. Background

Medicare post-acute care (PAC) services are primarily provided to beneficiaries for rehabilitation or recuperation in the course of treating an illness or injury, with a large proportion of these services initiated after an acute hospital stay.<sup>1,2</sup> Medicare PAC services are commonly provided by a skilled nursing facility (SNF), home health agency (HHA), inpatient rehabilitation facility (IRF), or long-term care hospital (LTCH). This chapter focuses on PAC services provided in SNFs.

In order for Medicare to cover services in an SNF, among other requirements, eligible beneficiaries must require daily skilled nursing or rehabilitation services and have a qualifying three-day prior inpatient hospital stay. For beneficiaries who meet all Medicare coverage criteria, Medicare Part A covers care in a SNF for up to 100 days in a benefit period, with Medicare paying for all covered services for days 1-20 and beneficiaries paying daily coinsurance for days 21-100.

SNFs, like hospitals, are paid under a prospective payment system (PPS). SNF PPS was implemented in 1998 using a per diem payment approach. SNFs are paid an urban or rural Federal per diem rate based on the location of the SNF in a core-based statistical area (CBSA) (i.e., urban) or non-CBSA area (i.e., rural), adjusted for the patient's clinical characteristics and care needs. The labor portion of the per-diem rate is adjusted for geographic differences in wages.

In recent years, there has been a significant shift in the SNF setting toward measurement, reporting, and payment based on quality. As part of the CMS Nursing Home Quality Initiative,<sup>3</sup> CMS reports SNF quality metrics on its Nursing Home Compare website<sup>4</sup> to help consumers choose high quality providers. This website includes measures such as the percentage of residents with new or worsened pressure ulcers and the percentage of residents experiencing one or more falls with major injury. Based on these and other measures as well as other factors, CMS assigns a star rating to each SNF on the website.

The IMPACT ACT (PL 133-185) requires CMS to implement a pay-for-reporting program for SNFs, and beginning with fiscal year 2018, CMS will reduce a SNF's market basket index percentage for a fiscal year by 2 percentage points if the SNF does not submit the data specified under the program.<sup>xi</sup> SNFs will also be required to participate in a value-based purchasing (VBP) program implemented under Section 215 of the Protecting Access to Medicare Act of 2014 (PL 113-93).<sup>xii</sup> Under the SNF VBP, CMS will initially make value-based incentive payments to SNFs based on their performance on an SNF all-cause, all-condition hospital readmission measure specified by the Secretary.

<sup>xi</sup> Under Section 1888(e)(6)(A)(i) of the Act, beginning with fiscal year 2018 and each subsequent fiscal year, the Secretary shall reduce the market basket update by 2 percentage points for any SNF that does not comply with data submission requirements with respect to that fiscal year.

<sup>xii</sup> Part of section 215 of the Protecting Access to Medicare Act of 2014 (Pub. L. 113-93, enacted April 1, 2014). The new law added subsections (g) and (h) to section 1888 of the Act.

CMS does not have the authority to adopt additional measures in the SNF VBP beyond those specified in sections 1888 (g)(1) and (2) of the Act. After a public solicitation of comments on aspects of the SNF VBP in the fiscal year 2016 proposed<sup>xiii</sup> and final<sup>xiv</sup> SNF PPS rules, the SNF 30-day All-Cause Readmission Measure (NQF #2510) was finalized as the measure that will be adopted in the initial SNF VBP program.<sup>xv</sup> For that reason, this chapter examines the relationships between social risk factors and performance on this measure in particular. However, additional measures are currently under development and may warrant exploration in future work.

#### **B. Existing Research on Differences in SNF Readmissions based on Social Risk Factors**

As the SNF VBP program is not yet in existence, there is no direct evidence of the impact of such a program on SNFs that serve beneficiaries of high social risk. There has been relatively little research on the relationship between social risk factors and readmissions or other outcomes in the post-acute setting more generally. However, a small number of prior studies suggest that racial and ethnic minorities may be more likely to go to low-quality skilled nursing facilities and have higher readmission rates at these facilities.<sup>5-7</sup> This research suggests that Medicaid-eligible beneficiaries tend to be admitted to lower-quality skilled nursing facilities than non-dually-enrolled beneficiaries,<sup>8</sup> and have lower access to home and community-based services for post-acute care.<sup>9</sup> It also suggests that rural beneficiaries may be more likely to be admitted to low-quality nursing homes,<sup>10</sup> although readmission rates from home health settings are lower in rural areas.<sup>11</sup>

#### **C. Limitations**

For this chapter in particular, there is no Medicare VBP program to model, but rather a program based on an existing measure for which scoring and payment adjustments have not started. The final specifications of how performance on the measure will be translated into payment adjustments are not yet determined; thus, the Chapter focuses on performance on the 30-day unplanned readmission measure.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on the SNF readmission measure. Next, it examines the performance of facilities serving beneficiaries with social risk factors on this measure, and provides an analysis of the relative contributions of beneficiary versus provider factors in readmissions. Finally, strategies and considerations are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

<sup>xiii</sup> 80 Fed. Reg. 22058

<sup>xiv</sup> 80 Fed. Reg. 46409

<sup>xv</sup> Additional details on the parameters of the SNF VBP will be implemented through future rulemaking.

## II. Beneficiary and Provider Characteristics

### A. Beneficiary Characteristics

The parameters outlined in Chapter 2 were used to define social risk factors, examining dually-enrolled, low-income ZCTA, Black, Hispanic, and rural beneficiaries, and beneficiaries with disabilities. One distinction between this chapter and previous ones is that in the post-acute setting, rural is defined using CBSA rather than metropolitan statistical area (MSA). As discussed above, SNFs are paid a standardized urban or rural Federal per diem rate based on the location of the SNF in a CBSA or non-CBSA area, and the labor portion of the per diem rate is adjusted for geographic differences in wages.

The patient population included in the SNF readmission measure tends to be older and sicker than Medicare beneficiaries as a whole. As shown in Table 12.1 below, moreover, the SNF beneficiaries at high social risk tend to have even higher burdens of comorbidities than their lower-risk counterparts.

**Table 12.1: SNF Beneficiary Population, Fiscal Year 2014**

		<b>Overall Population</b>	<b>Dually-Enrolled</b>	<b>Low-income ZCTA</b>	<b>Black</b>	<b>Hispanic</b>	<b>Rural (Non-CBSA)</b>	<b>Originally entitled to Medicare on the basis of disability</b>
<b>N</b>		1,725,721	564,671	356,969	176,969	73,660	169,289	383,551
<b>% of population</b>		100.0%	32.7%	20.7%	10.3%	4.3%	9.8%	22.2%
<b>Median age</b>		80	76	78	75	77	80	67
<b>Female</b>		62.7%	64.3%	62%	59.3%	57.9%	63.5%	54.7%
<b>Mean risk score</b>		1.72	2.20	1.84	2.21	2.09	1.53	2.35
<b>% of stays by number of HCC comorbidities</b>	0	2.3%	1.2%	1.8%	1.5%	2.1%	2.6%	1.7%
	1	4.7%	2.9%	4.1%	3.4%	4.3%	5.4%	3.6%
	2	6.4%	4.6%	6.0%	4.8%	5.8%	7.4%	5.2%
	3 - 5	23.0%	19.6%	21.8%	18.3%	20.3%	25.0%	19.3%
	6 - 9	28.0%	28.1%	27.9%	26.3%	26.1%	28.1%	26.2%
	10 +	35.6%	43.6%	38.5%	45.7%	41.4%	31.5%	44.0%
CBSA=core-based statistical area; HCC=hierarchical condition category; ZCTA=ZIP code tabulation area								

### B. SNF Characteristics

As described in Chapter 2, SNFs serving populations at high social risk were defined by designating the top quintile of SNFs in terms of their proportion of dual, poor, low income ZCTA, Black, or Hispanic beneficiaries, or beneficiaries with disabilities. SNFs located in a non-CBSA were designated as rural. The sample of these high social risk facilities included 16,651 SNFs. Their characteristics are shown in Table 12.2. On average, SNFs that served a high proportion of high-social-risk beneficiaries were more likely to be for-profit and urban. While 20% of SNFs overall received a 5-star rating, only about 10-14% of SNFs

serving high-social-risk populations received a five-star rating, with the exception of SNFs serving a high proportion of Hispanic beneficiaries, of which 19% received five stars.

**Table 12.2: SNF Characteristics, Fiscal Year 2014**

Provider Characteristics		Overall	High Dually-enrolled	Low-income ZCTA	High Black	High Hispanic	Rural (Non-CBSA)	High Disabled
# of providers		16,661	3,328	3,338	3,337	3,336	3,721	3,329
# of stays		1,725,721	198,197	241,440	344,077	347,309	166,376	214,342
Beds (median)		99	102	96	120	114	55	104
For-profit		65%	84%	68%	81%	81%	40%	85%
Urban (CBSA)		78%	85%	61%	88%	91%	0%	85%
High PAC*		22%	37%	19%	37%	41%	0%	30%
Star ratings	1	14%	24%	17%	22%	16%	8%	27%
	2	17%	24%	17%	23%	21%	10%	24%
	3	17%	18%	17%	19%	18%	12%	17%
	4	21%	17%	18%	18%	20%	13%	16%
	5 (best)	20%	14%	14%	13%	19%	13%	10%
	NA†	11%	3%	17%	5%	5%	44%	6%

CBSA=core-based statistical area; ZCTA=ZIP code tabulation area  
 \*: A High PAC area is defined as the availability of four Medicare PAC provider settings (i.e., Medicare SNF, HHA, LTCH and IRF) in a given CBSA or non-CBSA area. †: A missing SNF star-rating can be due to: 1) the facility not being open long enough, 2) the facility being too small to receive a rating, 3) the facility being a swing-bed facility

### III. Beneficiary Social Risk Factors and Performance on the 30-Day Readmission Measure

The SNF 30-day hospital readmission measure focuses on all-cause, all-condition, unplanned inpatient hospital readmissions of Medicare SNF beneficiaries within 30 days of discharge from an admission to an IPPS hospital, critical access hospital, or psychiatric hospital. The 30-day risk window for re-hospitalization starts on the discharge date of the prior proximal hospitalization. The SNF 30-day hospital readmission measure only includes unplanned hospital readmissions, and is risk-adjusted using, among other factors, patient demographics, length of stay, and intensive care unit (ICU) time during the prior proximal hospitalization, disability and ESRD status at the time of Medicare enrollment, and a variety of co-morbidities. Please see the Appendix to this chapter for full measure methodology.

#### A. Individual Social Risk Factors and Risk of Readmission

Table 12.3 shows the results of beneficiary-level analyses examining individual social risk factors and readmission rates, using fiscal year 2014 data. Dually-enrolled beneficiaries (the first row in the “in-group” column) had a raw readmission rate of 18.5% during the first 30 days of SNF care, compared to 16.3% for non-dually-enrolled beneficiaries (the “not in group” column). Overall, dually-enrolled

beneficiaries had 17% higher odds of readmission than non-dually-enrolled beneficiaries. Findings were similar for the other social risk factors, with the exception of rural, for which the odds of readmission was lower.

**Table 12.3: Beneficiary Level Social Risk Factors and Readmission Rates, Fiscal Year 2014**

SES Factor	In-Group Rates	Not-in-Group Rates	Odds Ratio*
<b>Dually-Enrolled</b>	18.5%	16.3%	<b>1.17</b>
<b>Low-Income ZCTA</b>	18.4%	16.6%	<b>1.13</b>
<b>Black</b>	20.8%	16.6%	<b>1.32</b>
<b>Hispanic</b>	19.0%	16.9%	<b>1.16</b>
<b>Rural</b>	16.2%	17.1%	<b>0.94</b>
<b>Disability</b>	19.3%	16.3%	<b>1.22</b>
*Odds greater than one indicated greater risk of readmission. Bolded odds are significant at p<0.05. Odds ratio was calculated from a generalized estimating equations model with independent correlation matrix, which gives the total (both within-SNF and between-SNF) effect of the social risk factor in each row. The tables are color-coded to communicate the directionality of the relationships with red indicating poorer performance and green indicating better performance.			

When these relationships were modeled using a random effects model, which isolated the within-facility effect of the social risk factor, the odds of readmission dropped from 1.17 to 1.10 for dually-enrolled beneficiaries (Table 12.4). This suggests that within the same SNF, a dually-enrolled beneficiary had 10% higher odds of readmission than a non-dual at that same facility. When risk adjustment variables were added to the model, including age, gender, and comorbidities, the findings actually reversed for dually-enrolled beneficiaries: after risk adjustment, dually-enrolled beneficiaries were 3% less likely to be re-hospitalized than non-dually-enrolled beneficiaries. For the other social risk factors, the effects similarly became smaller after adding risk adjustment variables, though they generally remained significant. When all six factors were included in a single model, there was very little change in the odds associated with each factor, suggesting that the contribution of each of the social risk factors was largely independent (Table 12.4):

**Table 12.4: Within-Facility Relationships between Social Risk Factors and Readmission, 2014**

SES Factor	Odds Ratio from Random Effects Model	Odds Ratio from Random Effects Model with Risk Adjustment	Odds Ratio from Random Effects Model with Risk Adjustment and all SES Factors Included
<b>Dually-enrolled</b>	<b>1.10</b>	<b>0.97</b>	<b>0.96</b>
<b>Low-Income ZCTA</b>	<b>1.10</b>	<b>1.05</b>	<b>1.05</b>
<b>Black</b>	<b>1.24</b>	<b>1.07</b>	<b>1.07</b>
<b>Hispanic</b>	<b>1.10</b>	<b>1.03</b>	<b>1.06</b>
<b>Rural</b>	<b>0.96</b>	1.01	1.01
<b>Disability</b>	<b>1.18</b>	<b>1.02</b>	<b>1.03</b>
Odds greater than one indicated greater risk of readmission. Bolded odds are significant at p<0.05. Random effects models include a term for social risk makeup of the SNF, in order to isolate the within-facility effect of the social risk factor in question.			

In summary, these analyses associated dual enrollment with slightly lower odds of readmission and Black, Hispanic, low-income, and disability status with higher odds of readmission in the first 30 days of a SNF stay following an index hospitalization, although the within-SNF effects after risk adjustment were small.

#### IV. SNF Social Risk Levels and Readmission Rates

##### A. SNF Social Risk Levels and Readmission Rates

The next question was whether SNFs serving a high proportion of beneficiaries with social risk factors had higher unplanned 30-day readmission rates for their beneficiaries overall. Table 12.5 shows the results of the patient level analyses, using fiscal year 2014 data. Patients at high-dual SNFs (first row in the in-group column) had a raw readmission rate of 19.8% during the first 30 days of SNF care, compared to 16.6% for beneficiaries at non-high-dual SNFs (the “not-in-group” column). This was equivalent to 23% higher odds of readmission than beneficiaries not at high-dual SNFs. Findings were similar for SNFs with a high proportion of beneficiaries with the other social risk factors, with the exception of rural SNFs serving a high proportion of high social risk beneficiaries, for which the odds of readmission was lower.

When risk adjustment variables were added to the model, including age, gender, and comorbidities, the size of the effects were reduced, but largely remained significant, with the exception of rural SNF location, which was not associated with readmission rates after risk adjustment.

**Table 12.5: SNFs Serving a High Proportion of High Social Risk Beneficiaries, Fiscal Year 2014**

SNF Type	In-Group Rates	Not-in-Group Rates	Odds Ratio*	Odds Ratio with Risk Adjustment
High-Dual	19.8%	16.6%	<b>1.23</b>	<b>1.10</b>
Low-Income ZCTA	18.3%	16.8%	<b>1.11</b>	<b>1.08</b>
High-Black	19.7%	16.3%	<b>1.27</b>	<b>1.12</b>
High-Hispanic	18.3%	16.7%	<b>1.13</b>	<b>1.04</b>
Rural	15.7%	17.1%	<b>0.88</b>	1.01
High-Disabled	19.5%	16.6%	<b>1.22</b>	<b>1.05</b>

Odds greater than one indicated greater risk of readmission. Bolded odds are significant at  $p < 0.05$ . \*Odds ratios are calculated from random effects models; in this case since the characteristic in question is a SNF, the odds from a random effects model gives the average effect for a patient being at that type of SNF (i.e., high-dual) versus another type of SNF (non-high-dual).

In summary, these analyses show that beneficiaries cared for at SNFs with a high proportion of beneficiaries at high social risk are more likely to be readmitted in the first 30 days of a SNF stay following an index hospitalization, and that these effects persist, though to a lesser degree, after risk adjustment.

##### B. Comparison of Individual Beneficiary versus SNF Social Risk Factors and Readmission Rates

Finally, to determine whether beneficiary or SNF characteristics were the dominant factor in determining readmission rates, regression models were run that included beneficiary and provider level



characteristics in the same model. In Table 12.6, the middle column shows the odds of re-hospitalization when each factor was examined independently. These values are the same as those found in tables 12.4 and 12.5. In the rightmost column, each beneficiary level social risk factor and SNF indicator was added in the same model to examine the relative contribution of beneficiary and provider factors.

In general, these results suggest that the provider-level factors are more powerful predictors of readmissions than the beneficiary-level factors. For example, in the first two rows, dual enrollment was associated with a 4% lower odds of readmission, while being at a high-dual SNF was associated with a 12% higher odds of readmission; because these estimates did not change very much when going from the models in which these factors are considered separately (middle column) to the models in which they are considered together (right column), the two factors were largely independent of each other. These findings were relatively similar across social risk factors, with the exception of rural patient and provider location, which had no relationship to SNF readmissions.

**Table 12.6: Beneficiary versus Provider Factors in Readmissions**

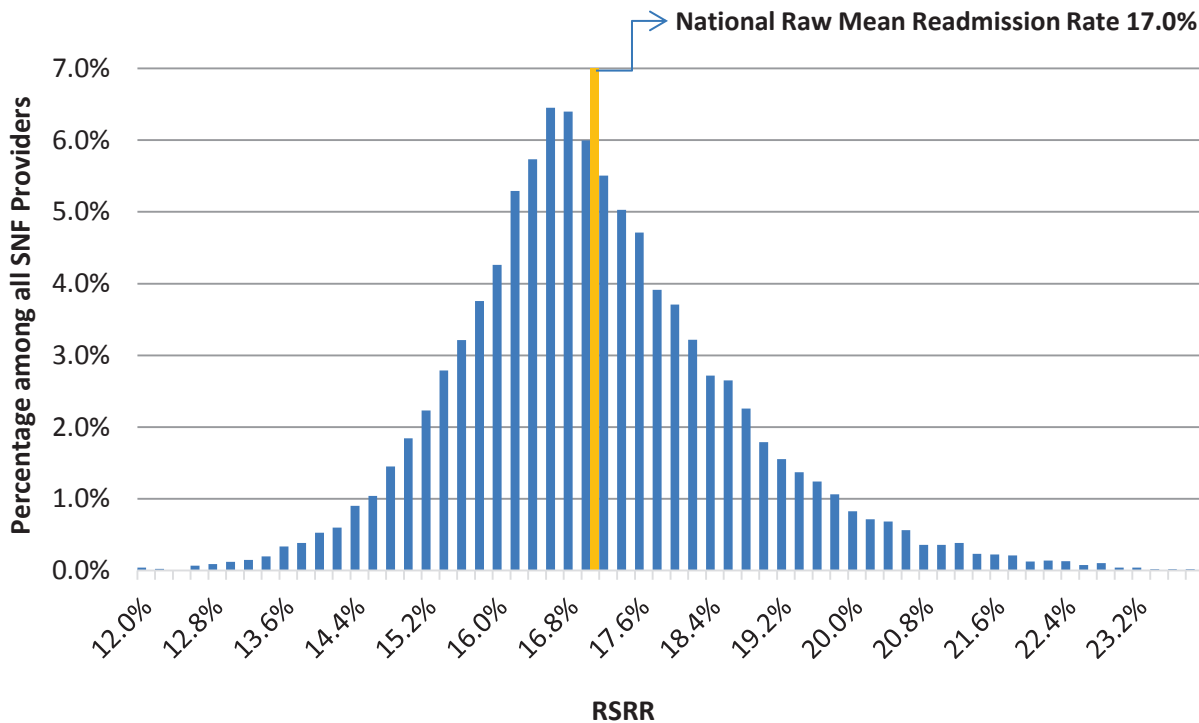
<b>Beneficiary or Provider Level Factor</b>	<b>Models Run Separately for Beneficiary and Provider Factors</b>	<b>Models Run with Beneficiary and Provider Factors in same model</b>
<b>Dually-Enrolled – Beneficiary</b>	<b>0.97</b>	<b>0.96</b>
<b>High-Dual – Provider</b>	<b>1.10</b>	<b>1.12</b>
<b>Low-Income ZCTA – Beneficiary</b>	<b>1.05</b>	<b>1.04</b>
<b>Low-Income ZCTA - Provider</b>	<b>1.08</b>	<b>1.05</b>
<b>Black – Beneficiary</b>	<b>1.07</b>	<b>1.03</b>
<b>High-Black - Provider</b>	<b>1.12</b>	<b>1.11</b>
<b>Hispanic- Beneficiary</b>	<b>1.03</b>	<b>1.02</b>
<b>High-Hispanic - Provider</b>	<b>1.04</b>	<b>1.04</b>
<b>Rural – Beneficiary</b>	1.01	1.01
<b>Rural – Provider</b>	1.01	1.00
<b>Disability – Beneficiary</b>	<b>1.02</b>	<b>1.02</b>
<b>High-Disabled - Provider</b>	<b>1.05</b>	<b>1.05</b>
Odds greater than one indicated greater risk of readmission. Bolded odds are significant at p<0.05. All models are random effects models with full risk-adjustment variables included.		

## **V. SNF-Level Performance Analyses**

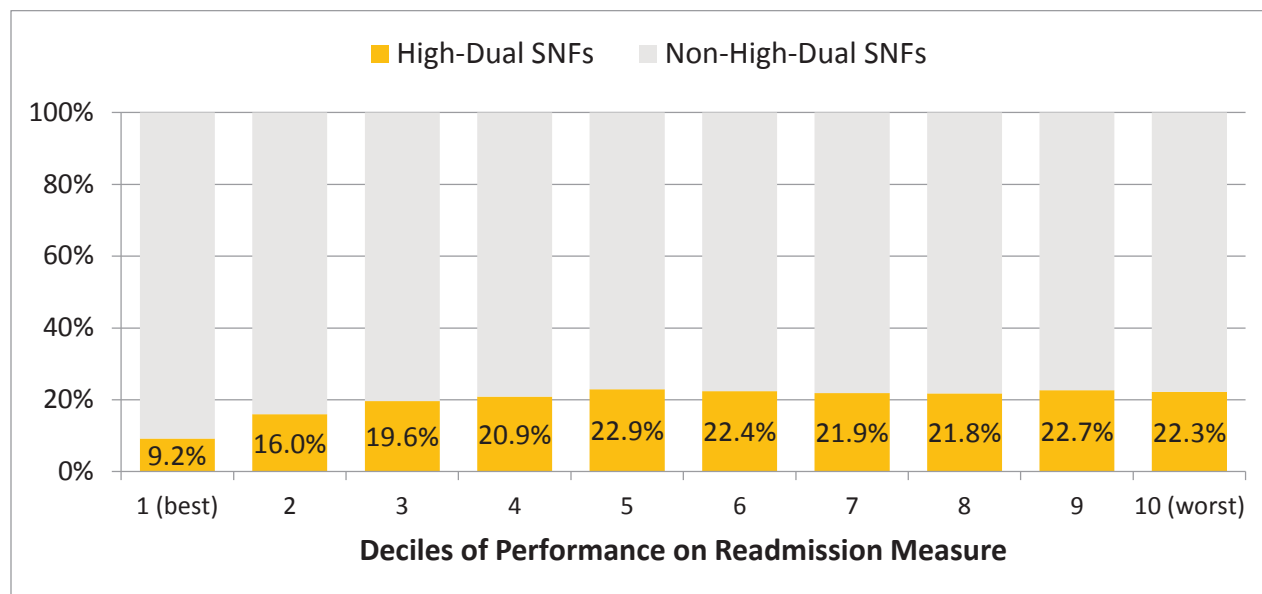
The results shown thus far are beneficiary-level analyses examining the relationship between social risk factors and odds of readmission. However, for use in a SNF VBP program, the measure would be aggregated to the SNF level. Facility performance was therefore examined by expressing SNF

performance on the readmission measure as a risk standardized readmission rate (RSRR). The RSRR is the predicted number of readmissions divided by the expected number of readmissions multiplied by the national raw mean hospital readmission rate.<sup>12</sup> The fiscal year 2014 national raw readmission rate was 17.0%; the distribution of RSRR measure performance for all SNFs in fiscal year 2014 is shown in Figure 12.1.

**Figure 12.1: Distribution of Risk-Standardized Readmission Rate (RSRR) Measure Performance**



One way to model potential impact of a program is to examine the distribution of facilities into performance groups. In the figure below, SNFs were broken into deciles by RSRR, and the proportion of each group comprised of high-dual SNFs is shown (Figure 12.2); high-dual SNFs were under-represented in the best-performing group, and over-represented in the worst-performing groups:

**Figure 12.2: Distribution of High-Dually-enrolled SNFs in Deciles of Performance on Readmissions**

However, there were high-dual SNFs represented in every decile of performance, including the best performing group.

## VI. Policy Options

The focus of this chapter is on the relationships between social risk factors and performance on the 30-day SNF readmission measure, as discussed above. This chapter does not simulate specific policy options, but instead focuses on considerations for the ongoing development of a national SNF VBP.

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying relationships:

- Analyses showed that beneficiaries at high social risk were much more likely to be re-hospitalized during the first 30 days of a SNF stay. However, after applying the risk adjustment variables to the model, these effects were significantly smaller, and the effect of dual enrollment disappeared.
- Similarly, by raw readmission rates, being at a SNF with a high proportion of dual, low-income, Black, Hispanic, or disabled beneficiaries was associated with an increased likelihood of re-hospitalization during the first 30 days of a SNF stay, regardless of a patient's social risk. This result decreased with CMS risk adjustment, but remained significant.

- The exception to these findings was for rural beneficiaries and rural SNFs, where readmission rates were lower than in urban settings, but the results were not statistically significant.
- When patient and provider social risk factors were included in a single model, the provider level effect was in general larger than the patient level effect.

## B. Policy Analysis, Strategies, and Considerations

As discussed above, the SNF chapter does not include specific policy options or simulations, but rather focuses on considerations relevant to the development of a future national SNF VBP program. The considerations are made in light of the policy criteria outlined in Chapter 1, and reiterated in Table 12.7:

**Table 12.7: Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

### STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors

Measurement and reporting are foundational for quality improvement in health care.

#### CONSIDERATION 1: Consider developing SNF readmission measures and/or statistical approaches suitable for reporting of performance for beneficiaries with social risk factors, where feasible.

Measures stratified into subgroups could allow CMS and clinicians to track and address disparities in readmission rates for beneficiaries at high social risk. Doing so may increase the ability to target quality improvement efforts at groups that may benefit most from such intervention.

#### CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the SNF VBP program to assess and reward facility efforts to reduce health disparities.

The report on best practices for socially at risk beneficiaries from the National Academies of Sciences, Engineering, and Medicine recognized the prioritization of equity as a key strategy for health care organizations to deliver high-quality care to beneficiaries with social risk factors.<sup>13</sup>

To further highlight the importance of health equity and to focus agencies' attention on reducing disparities, creating a health equity measure or domain could also be considered if the SNF quality metric list were to be broadened. This would enhance incentives to deliver high-value care to all

beneficiaries, including beneficiaries with social risk factors. This approach would be particularly consistent with the policy criterion of encouraging reduction of disparities. A health equity domain could include performance on measures of disparity reduction, performance on outcomes for beneficiaries with social risk factors, or structural measures including systems practices that address the needs of beneficiaries with social risk factors. However, measures that would comprise such a domain have not been developed, and would need to be carefully constructed, tested, and validated prior to use.

**CONSIDERATION 3: Consider increasing the number of metrics included in SNF VBP to be more reflective of a broader agenda for improving quality in this setting.**

As mentioned above, the current statutory parameters governing the national SNF VBP specify that the program only includes one measure; in order to provide a more thorough assessment of SNF quality for consumers, and to incent broader improvements in quality, additional measures may be of use. Exploration of additional domains and measures should be considered such as those measures included in SNF quality reporting program and reported on nursing home compare. The FY 2017 President's Budget includes a legislative proposal to implement value-based purchasing for additional providers, which could potentially be used to add measures to the future SNF VBP.

**CONSIDERATION 4: As SNF VBP is implemented, consider prospectively monitoring for potential unintended consequences. Specifically, the potential for reducing access to care for beneficiaries perceived to be at high risk of readmission, such as dually-enrolled beneficiaries, beneficiaries with disabilities or individuals with multiple comorbidities, should be tracked.**

Because in many cases SNFs have the opportunity to screen and either accept or deny beneficiaries based on clinical, financial, or other characteristics, value-based purchasing programs could potentially reduce access to SNF care for populations perceived to be at high risk of readmission or other poor outcomes. The potential for this unintended consequence should be carefully monitored.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: The SNF readmission measure should continue to be examined to determine if adjustment for social risk factors is appropriate.**

Similar to findings in other settings (hospitals, ACOs, physician groups), raw readmission rates in the SNF setting were much higher for populations with social risk factors. However, in contrast to other settings, these effects were almost entirely accounted for by the risk adjustment models.

The two potential explanations for this discrepancy cannot be differentiated using current data. First, it is possible that the SNF readmission measure does a better job measuring comorbidities than the hospital, ACO, or physician value-based modifier readmission measures; as dually-enrolled beneficiaries are typically sicker and more medically complex, better measurement of comorbidities may reduce the residual effect of dual enrollment. This is a plausible explanation given that the SNF readmission measure includes a host of variables not included in other settings, such as whether an individual is disabled, whether prior hospitalizations included an ICU stay, and whether other hospital utilizations occurred earlier in the year, in addition to a comorbidity burden variable. From this perspective, the higher underlying medical risk of the SNF population may explain, or underlie, much of the effect of high social risk in this population. This may have implications for the design or update of readmission measures in other settings.

It is also possible that something about the SNF setting itself differs from other settings. When beneficiaries are discharged to SNFs, their environments are controlled – all beneficiaries at a SNF have access to shelter, food, their medications, and a degree of medical and other services and supports that may not always be available or available consistently in the home. It is therefore possible that the reason the results do not yield major differences in readmission rates between dually-enrolled beneficiaries and non-dually-enrolled beneficiaries is because this common environment may meet needs that may go unmet in other environments.

The finding that there is a significant facility effect – i.e., beneficiaries at SNFs with a high proportion of high risk beneficiaries do more poorly, regardless of the patient’s individual social risk – supports this latter hypothesis. In an environment in which the facility is controlling medications and medical evaluation, differences in quality may be more readily translated into differences in readmission rates, as opposed to the hospital setting, where readmissions by definition occur after beneficiaries have left the building. The fact that low-quality facilities tended to have higher readmission rates irrespective of an individual patient’s socioeconomic circumstances supports this possibility as well.

**CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

As the SNF VBP program is developed, the measure will change from the current SNF readmission measure to a potentially preventable readmission measure. Particularly given the findings outlined in Consideration 1, the new measure should be studied to understand the relationships between complexity, frailty, disability, and functional status and potentially preventable readmissions.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives to reward skilled nursing facilities that achieve high quality or significant improvement for beneficiaries with social risk factors.**

One way to prioritize improving outcomes in beneficiaries with social risk factors is to provide targeted payment adjustments. Providing such incentives for SNFs that achieve good outcomes in high-risk populations, be they medically or socially high-risk, could both reduce the disincentive to caring for high-risk groups and recognize that it might be more challenging to achieve low rates of readmission in high-risk populations. This consideration would provide additional reward and/or recognition to SNFs that are able to achieve a quality standard for socially or medically at-risk populations.

Parameters of such an award would need to be determined; one possible model is the bonus in the current Physician Value-based payment modifier program, which awards high-performing practices an additional bonus if they have a particularly medically complex patient population; such an approach could be extended to those facilities with a particularly socially complex population. Alternatively, a payment adjustment could be developed that provided incentives specifically for high performance or improvement in beneficiaries with social risk factors, regardless of the overall population of the facility. Such bonuses could be scaled such that they reflected the proportion of beneficiaries with social risk factors at each facility.

The advantage of this approach is that it provides SNFs an additional incentive to focus on achieving good outcomes in at-risk beneficiaries, which may help reduce disparities in care and outcomes more broadly. One disadvantage is that such a bonus may only reward those high performing SNFs and not “lift all boats” or help lower performing SNFs who are serving a higher proportion of high-risk beneficiaries. Policymakers would need to decide whether the option would be implemented in a budget neutral fashion. A bonus payment could be provided as an additional payment in a non-budget neutral manner or funded via withholds from lower performing providers within the program under a budget-neutral approach.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to facilities that disproportionately serve beneficiaries with social risk factors to help improve quality.**

The findings presented here suggest that particular attention will need to be paid to facilities that serve a high proportion of dually-enrolled beneficiaries or beneficiaries with disabilities, or racial or ethnic minorities, as these facilities may face financial penalties under a SNF VBP program. Quality



improvement efforts focused on reducing readmission rates should be targeted at these facilities, and best practices shared and disseminated from the facilities serving high proportions of high-social-risk beneficiaries that do achieve good outcomes, where feasible. Such efforts may have the potential to reduce disparities as well.

**CONSIDERATION 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

Demonstration programs could help Medicare learn more about what types of care might achieve the best outcomes for beneficiaries requiring post-acute SNF care. For example, demonstration programs could include consideration of targeted interventions for dually-enrolled individuals, modeled on the successes found in Medicare Advantage plans that have focused on integrating benefits and supports across Medicare and Medicaid, particularly those who might be at risk for long-term institutionalization.

**CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.**

Finally, payment policies should be examined. The SNF setting pays in a bundled fashion based in part on medical risk, but does not provide additional payments for providers based on the social risk profile of its beneficiaries, though this is done in some other care settings – most notably the DSH payments awarded to hospitals based on the social risk profile of hospitalized individuals. It is currently unknown whether or not payments based on medical risk adequately account for any differences in the costs of providing post-acute care to beneficiaries with social risk factors. Additional analyses should examine this issue.

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## CHAPTER 13: Home Health Agencies

### In This Chapter:

- *Is there a relationship between beneficiary social risk and performance on quality measures in the Home Health Agency (HHA) setting?*
- *Is there a relationship between HHA social risk profile and performance on these metrics?*

This chapter presents findings on the relationship between beneficiary or agency social risk and performance under readmission measures relevant to the home health agency (HHA) setting.

### Key Findings:

- By raw rates, beneficiaries with social risk factors were much more likely to be re-hospitalized or use ED services during the first 30 days of home health care.
- CMS risk adjustment decreased the effect to some degree, but many social risk factors remained predictive of re-hospitalization and ED use at the beneficiary level. Results were more mixed at the provider level.
- In looking at the relative contribution of beneficiary-level versus provider-level effects, beneficiary dual enrollment and disability status were the dominant factors.

### Strategies and Considerations for the Home Health Setting

SUMMARY OF STRATEGIES AND CONSIDERATIONS
<b>STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key HHA quality and resource use measures.
CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the HHVBP program to assess and reward facility efforts to reduce health disparities.
CONSIDERATION 3: As HHVBP is implemented, consider prospectively monitoring for potential unintended consequences. Specifically, the potential for reducing access to care for beneficiaries perceived to be at high risk of readmission, such as dually-enrolled beneficiaries, beneficiaries with disabilities or individuals with multiple comorbidities, should be tracked.

<b>STRATEGY 2: Set High, Fair Standards for All Beneficiaries</b>
CONSIDERATION 1: The HHA readmission and ED use measures should continue to be examined to determine if adjustment for social risk factors is appropriate.
CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between agencies.
<b>STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors</b>
CONSIDERATION 1: Consider providing additional financial incentives to reward agencies that achieve high quality or significant improvement for beneficiaries with social risk factors.
CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to providers that disproportionately serve beneficiaries with social risk factors to help improve quality.
CONSIDERATION 3: Consider exploring the potential under the HHA demonstration program to test care innovations particularly focused on beneficiaries with social risk factors.
CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.

## I. Introduction

### A. Background

As described in chapter 12, Medicare post-acute care (PAC) services are primarily provided to beneficiaries for rehabilitation or recuperation in the course of treating an illness or injury. Unlike other institutional PAC services (i.e., skilled nursing facilities, inpatient rehabilitation facilities, and long-term care hospitals), Medicare home health services are provided in a beneficiary's home on a visiting basis by a participating home health agency (HHA). Medicare coverage includes part-time or intermittent skilled nursing services, home health aide services, physical therapy, occupational therapy, speech-language pathology services, medical supplies, and durable medical equipment. Eligible beneficiaries must require intermittent skilled nursing care or therapy, meet Medicare's definition of homebound, receive services from a Medicare participating home health agency (HHA), and be under a physician's plan of care.

While many Medicare beneficiaries receive PAC services following a hospital stay, the majority receiving Medicare home health coverage actually do so without a prior hospital stay. According to the Medicare Payment Advisory Commission (MedPAC), between 2001 and 2012 the proportion of episodes of home health not preceded by a hospital stay increased from 53% to 66%.<sup>1</sup>

Like hospitals and other Medicare PAC providers, HHAs are paid under a prospective payment system (PPS) using a 60-day episode of care, as implemented in 2000. The HHA 60-day PPS payment is case-mix adjusted for the beneficiary's clinical characteristics and care needs using items from the Outcome & Assessment Information Set (OASIS). Beneficiaries are grouped into home health resource groups (HHRGs), similar to Diagnosis-Related Groups (DRGs) in the hospital setting. The HHRGs vary based on the timing of the care episode, the beneficiary's clinical and functional status, and therapy utilization. The labor portion of the payment is further adjusted for geographic differences in wages based on whether the beneficiary resides in a core-based statistical area (CBSA) (i.e., urban area) or non-CBSA (i.e., rural area).

In recent years, there has been a significant shift in the HHA setting towards measurement, reporting, and payment based on quality. As part of the CMS HHA Quality Initiative, CMS reports HHA quality metrics on its Home Health Compare website to help consumers choose high quality providers. The Home Health Compare Website includes measures such as improvement in ambulation. Based on a subset of these measures, CMS assigns a Star Rating to each HHA for HHA Compare.

Since 2007, HHAs have been subject to a potential annual payment update adjustment based on successfully reporting quality data to CMS.<sup>xvi</sup> This HHA quality reporting program includes both process and outcome measures. Those HHAs which successfully report quality data to CMS do not receive an adjustment to their annual market basket payment update, whereas HHAs that are deemed

<sup>xvi</sup> Section 1895(b)(3)(B)(v)(I) of the Act.

unsuccessful reporters receive a two percentage point reduction. This approach is similar to the initial hospital quality reporting program.

Currently, there is no mandatory national value-based purchasing (VBP) program for HHAs. In the final calendar year 2016 HHA PPS rule,<sup>xvii</sup> CMS finalized a mandatory HHVBP model in nine states, which includes several domains of measures (Patient and Caregiver-Centered Experience and Outcomes, Clinical Quality of Care, Care Coordination, Population Health, Efficiency and Cost Reduction, and Safety). The first performance year is calendar year 2016, with performance to be assessed annually through calendar year 2020. The first payment adjustment will begin in calendar year 2018 based on calendar year 2016 performance data. The program contains a gradual payment adjustment, initially set at 3% for calendar year 2018 (upward or downward) and increasing to 8% for calendar year 2022.

Given the timing of this project and the lack of a national HHVBP program or experience under the HHVBP mandatory model launched in nine states, this analysis will focus on the relationships between social risk factors and performance on two HHA measures: 1) NQF 2380 Re-Hospitalization During the First 30 Days of Home Health and 2) NQF 2505 Emergency Department (ED) Use without Hospital Readmission During the First 30 Days of Home Health. These measures are largely used together to evaluate quality.

#### **B. Existing Research on Differences in HHA Re-hospitalizations and Emergency Department Use Without Readmission**

Since a national HHVBP program is not yet in existence, there is no direct evidence of the impact of such a program on HHAs that serve beneficiaries of high social risk, nor is much research available on the relationship between social risk factors and readmissions or other outcomes in the home health setting. Most available evidence regarding social risk factors in the home health setting concerns issues of access rather than quality, and finds that, in general, Medicare beneficiaries with social risk factors are not more likely to lack access to home health services than those without social risk factors.<sup>2,3</sup> Some research suggests that dually-enrolled beneficiaries are more likely than non-dually-enrolled beneficiaries to receive home health services, and account for a disproportionate share of home health use and spending,<sup>4</sup> but little is known about how their home health care outcomes compare to those of other beneficiaries. Other evidence suggests that rural beneficiaries in home health care are less likely to be readmitted than urban beneficiaries.<sup>5</sup>

#### **C. Limitations**

Because the analyses for this Report were taking place concurrently with the development of the HHVBP model, there is no program data to evaluate. Instead, the analyses described in this chapter are focused on existing measures in the home health space; in particular this chapter examines readmissions and ED use without rehospitalization because of the importance of this outcome across care settings.

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<sup>xvii</sup> 80 Fed. Reg. 68624.

One other limitation is inherent to the measures chosen; due to the exclusion criteria for the measures, only about 25% of HHA stays in the observation period qualify for the measure denominator. Out of the denominator, 9% of stays have the outcome ED use without re-hospitalization and 13% have the outcome re-hospitalization. These figures highlight the small proportion of stays subject to the performance measure.

#### **D. Framework for the Chapter: Analytic Findings, Policy Simulations, Strategies, and Considerations**

The remainder of this chapter is structured as follows. First, it describes underlying relationships between social risk and performance on measures of HHA quality. Next, it examines the performance of agencies serving beneficiaries with social risk factors on these measures. Finally, strategies and considerations are presented, using the strategic framework outlined in Chapter 1: 1) measure and report quality for beneficiaries with social risk factors; 2) set high, fair standards for all beneficiaries; and 3) reward and support better outcomes for beneficiaries with social risk factors. These three strategies build on each other to address social risk in Medicare payment programs.

## **II. Beneficiary and Provider Characteristics**

### **A. Beneficiary Characteristics**

To define social risk factors, the parameters outlined in Chapter 2 were followed, and these analyses examine dually-enrolled, low-income ZCTA, disabled, Black, Hispanic, and rural beneficiaries. One notable difference between this chapter and others, except Chapter 12 on SNF, is that in the post-acute setting, rural status is defined using CBSA or non-CBSA rather than MSA or non-MSA. Additionally, rurality at the facility level is driven based on the address of the beneficiaries to which services are provided rather than the address of the provider, since the beneficiary's residence is by definition the place of service delivery. Results are presented using three fiscal years of data to capture the three-year reporting period used in the HHA 30-day claims-based measures.

As Table 13.1 shows, beneficiaries with social risk factors tend to have more comorbidities as defined by hierarchical condition category (HCC) counts, with the exception of rural HHA beneficiaries.



**Table 13.1: HHA Beneficiary Population, Fiscal Year 2012- 2014**

		Overall Population	Dually-Enrolled	Low-Income ZCTA	Black	Hispanic	Rural (Non-CBSA)	Beneficiaries with Disabilities
<b>N</b>		2,464,387	570,964	518,090	258,086	135,364	203,890	592,651
<b>% of HHA population</b>		100%	23.2%	21.0%	10.5%	5.5%	8.3%	24.0%
<b>Median age</b>		76	70	74	71	74	75	64
<b>% Female</b>		58.6%	66.4%	59.9%	63.4%	59.0%	57.1%	55.1%
<b>Mean risk score</b>		1.33	1.72	1.42	1.68	1.55	1.17	1.73
<b>% of stays* by HCC Counts</b>	<b>0</b>	1.2%	0.6%	1.0%	0.7%	1.2%	1.4%	0.7%
	<b>1</b>	3.0%	1.8%	2.5%	2.1%	3.0%	3.4%	1.9%
	<b>2</b>	5.0%	3.4%	4.5%	3.9%	5.0%	5.5%	3.4%
	<b>3-5</b>	23.3%	19.7%	22.1%	20.6%	23.3%	24.5%	19.2%
	<b>6-9</b>	32.5%	32.4%	32.5%	32.1%	31.4%	31.5%	31.2%
	<b>10+</b>	35.1%	42.0%	37.4%	40.6%	36.0%	33.6%	43.6%
*A stay for purposes of the measure is a sequence of home health 60-day episodes separated by at least 60 days that meet the measure exclusion criteria. HCC=hierarchical condition category. Note: categories are not mutually exclusive.								

**B. HHA Characteristics**

As described in Chapter 2, HHAs that serve populations at high social risk were defined by sorting all HHAs by the share of the social risk variable (i.e., dual, low-income, disabled, etc.) and identifying HHAs that account for the top 20% of the initial population for the 30-day HHA re-hospitalization and ED use without readmission measures. This definition differs from that used in other analyses; when the top 20% of providers (rather than population) was used to identify the group of interest, due to a high number of very low-volume providers in the HHA setting, this identified less than 5% of beneficiaries. Beneficiaries (rather than HHAs) located in non-CBSAs are designated rural; thus the “high-rural” HHAs are those with the highest proportion of rural beneficiaries.

Table 13.2 shows characteristics of the 11,774 HHAs in the sample. On average, HHAs that served a high proportion of high-social-risk beneficiaries tend to be for-profit and urban. Rural HHAs were particularly unlikely to be in high-PAC areas (defined as the availability of four Medicare PAC provider settings (i.e., Medicare SNF, HHA, LTCH and IRF) in a given CBSA or non-CBSA), and high-Hispanic HHAs had the highest proportion of 4+ star ratings at 21.0%, while high-disabled and high-Black agencies had the lowest at 15%.

**Table 13.2: HHA Characteristics, FYs 2012-2014**

Provider Characteristics		All Providers	High Dually-enrolled	Low-income ZCTA	High Black	High Hispanic	High Rural (Non-CBSA)	High Disabled
# of providers		11,774	5,113	4,085	3,637	3,956	2,264	4,248
# of stays*		2,464,387	311,183	402,294	445,784	382,010	534,332	420,634
# of beneficiaries		2,209,696	282,914	370,633	407,917	345,572	490,691	387,573
For-profit		74.1%	86.6%	80.0%	86.3%	87.1%	54.2%	82.3%
CBSA (urban)		87.6%	90.7%	84.9%	92.4%	93.3%	56.7%	88.2%
High PAC**		47.6%	67.2%	53.6%	63.2%	72.7%	10.8%	54.2%
Star ratings	1-1.5	1.6%	2.6%	2.4%	2.2%	2.2%	1.7%	2.6%
	2-2.5	20.1%	22.7%	23.4%	23.3%	21.1%	23.3%	24.6%
	3-3.5	35.9%	25.2%	27.3%	28.0%	27.8%	43.7%	27.5%
	4-5	20.6%	18.1%	16.8%	15.1%	20.9%	17.5%	15.0%
	NA†	21.9%	31.6%	30.0%	31.5%	27.9%	13.8%	30.2%
<p>*A stay for purposes of the measure is a sequence of home health 60-day episodes separated by at least 60 days and meets the exclusion criteria.</p> <p>**A High PAC area is defined as the availability of four Medicare PAC provider settings (i.e., Medicare SNF, HHA, LTCH and IRF) in a county. †A missing HHA star-rating can be due to: 1) the agency not being open long enough, 2) the agency being too small to receive a rating. Note: Provider categories are not mutually exclusive</p>								

### III. Beneficiary Social Risk Factors, Re-Hospitalization, and ED Use Rates

Similar to the SNF measure described in Chapter 12, the HHA 30-day re-hospitalization and 30-day ED use without readmission measures are triggered by the start, not the end, of care. As such, the 30-day risk window for measures of re-hospitalization or ED use without readmission starts on the first day of home health care. Both measures apply to beneficiaries who had an acute inpatient hospitalization in the five days prior to the start of their home health care. The home health 30-day re-hospitalization measure excludes planned hospitalizations (i.e. for scheduled chemotherapy), and is risk-adjusted using demographics, disability and ESRD status at the time of Medicare enrollment, activities of daily living scores calculated by combining Outcome and Assessment Information Set (OASIS) items, prior care setting and a variety of co-morbidities. The ED use without unplanned re-hospitalizations measure includes the same risk adjustment items. Please see the Appendix to this chapter for full methodology.

#### A. Individual Social Risk Factors and Risk of Re-Hospitalization and ED Use

Table 13.3 shows the results of beneficiary-level analyses examining individual social risk factors and hospital readmission rates, using fiscal year 2012-2014 data. Dually-enrolled beneficiaries (the first row in the “in-group” column) had a raw hospital readmission rate of 16% during the first 30 days of home health care, compared to 12.3% for non-dually-enrolled beneficiaries (the “not-in-group” column). Overall, dually-enrolled beneficiaries had 44% higher odds of hospital readmission than non-dually-

enrolled beneficiaries. Findings were similar for the other social risk factors, with the exception of the rural group, which demonstrated no significant relationship with readmission.

**Table 13.3: Beneficiary-Level Social Risk Factors and Re-Hospitalization Rates, FYs 2012-2014**

Social Risk Factor	In-Group Rates	Not-in-Group Rates	Odds Ratio*
<b>Dually-Enrolled</b>	16.0%	12.3%	<b>1.44</b>
<b>Low Income ZCTA</b>	14.3%	12.8%	<b>1.16</b>
<b>Black</b>	15.6%	12.8%	<b>1.31</b>
<b>Hispanic</b>	14.2%	13.0%	<b>1.12</b>
<b>Rural</b>	12.9%	13.1%	1.00
<b>Disability</b>	15.5%	12.4%	<b>1.37</b>
Bolded odds are significant at p<0.05. Odds ratios were calculated from a generalized estimating equations model with independent correlation matrix, which gives the total (both within-HHA and between-HHA) effect of the social risk factor in each row.			

When these relationships were examined using a random effects model, including a term for HHA social risk makeup, which isolates the within-agency effect of the social risk factor, the odds of hospital readmission dropped from 1.44 to 1.41 for dually-enrolled beneficiaries (Table 13.4). This suggests that within the same HHA, a dually-enrolled beneficiary has 41% higher odds of re-hospitalization than a non-dual. When risk adjustment variables were added to the model, including age, gender, comorbidities, and functional status as outlined above, the effect was significantly attenuated: dually-enrolled beneficiaries were just 9% more likely to be re-hospitalized than non-dually-enrolled beneficiaries. For the other social risk factors, the effects similarly became smaller after adding risk adjustment variables, though they remained significant for the most part. When all six factors were included in a single model, relationships remained minimal for low-income ZCTA, Black, Hispanic, and rural beneficiaries; the odds ratios for dual enrollment and the presence of a disability were unchanged at 1.09 and 1.11, respectively.

**Table 13.4: Social Risk Factors and Re-Hospitalization, FYs 2012-2014**

Social Risk Factor	Odds Ratio from Random Effects Model	Odds Ratio from Random Effects Model with Risk Adjustment	Odds Ratio from Random Effects Model with Risk Adjustment and all SES Factors Included
<b>Dually-Enrolled</b>	<b>1.41</b>	<b>1.09</b>	<b>1.09</b>
<b>Low Income ZCTA</b>	<b>1.14</b>	<b>1.03</b>	<b>1.02</b>
<b>Black</b>	<b>1.28</b>	<b>1.02</b>	1.00
<b>Hispanic</b>	<b>1.13</b>	1.00	<b>0.97</b>
<b>Rural</b>	0.98	1.01	1.00
<b>Disability*</b>	<b>1.34</b>	<b>1.11 (M)</b> <b>1.13 (F)</b>	<b>1.11</b>
*Because the CMS risk model includes disability as an interaction term with gender, each gender is presented separately here. Bolded odds ratios are significant at p<0.05. Random effects models include a term for HHA social risk makeup to isolate the within-facility effect of the SES factor in question.			

Table 13.5 shows the results of beneficiary-level analyses examining individual social risk factors and ED use rates without hospital readmission, using fiscal year 2012-2014 data. Dually-enrolled beneficiaries (the first row in the “in-group” column) had a raw ED use rate of 11.7% during the first 30 days of home health care, compared to 8.1% for non-dually-enrolled beneficiaries (the “not-in-group” column). Patients with high social risk factors were more likely to use ED in the first 30 days of a home health stay. Dually-enrolled beneficiaries had 59% higher odds of ED use than non-dually-enrolled beneficiaries, and findings were similar for the other social risk factors:

**Table 13.5: Patient Level Social Risk Factors and ED Use Rates, FYs 2012-2014**

Social Risk Factor	In-Group Rates	Not in-Group Rates	Odds Ratio*
<b>Dually-enrolled</b>	11.7%	8.1%	<b>1.59</b>
<b>Low Income ZCTA</b>	10.1%	8.7%	<b>1.20</b>
<b>Black</b>	11.1%	8.7%	<b>1.36</b>
<b>Hispanic</b>	9.7%	8.9%	<b>1.11</b>
<b>Rural</b>	10.3%	8.9%	<b>1.19</b>
<b>Disability</b>	11.6%	8.1%	<b>1.56</b>
Bolded odds are significant at $p < 0.05$ . Odds ratio is calculated from a generalized estimating equations model with independent correlation matrix, which gives the total (both within-HHA and between-HHA) effect of the social risk factor in each row.			

Table 13.6 shows the results from modeling these relationships using a random effects model, which isolates the within-facility effect of the social risk factor. Overall, these numbers were relatively unchanged from the prior table, and suggest that within the same HHA, beneficiaries with social risk factors are more likely to use the ED than other beneficiaries. When risk adjustment variables were added to the model, including age, gender, comorbidities, and functional status as outlined above, the effect was reduced: dually-enrolled beneficiaries had 20% higher odds of ED use in the first 30 days of a home health stay than non-dually-enrolled beneficiaries. For the other social risk factors, the effects similarly became smaller after adding risk adjustment variables with the exception of rural. When all six factors were included in a single model, the odds for each were reduced slightly, but remained significant; dual enrollment remained the dominant factor.

**Table 13.6: Social Risk Factors and ED Use, FYs 2012-2014**

Social Risk Factor	Odds Ratio from Random Effects Model	Odds Ratio from Random Effects Model with Risk Adjustment	Odds Ratio from Random Effects Model with Risk Adjustment and all SES Factors Included
Dually-enrolled	<b>1.59</b>	<b>1.20</b>	<b>1.18</b>
Low Income ZCTA	<b>1.17</b>	<b>1.07</b>	<b>1.02</b>
Black	<b>1.39</b>	<b>1.15</b>	<b>1.12</b>
Hispanic	<b>1.17</b>	<b>1.06</b>	<b>1.03</b>
Rural	<b>1.09</b>	<b>1.09</b>	<b>1.09</b>
Disability	<b>1.52</b>	<b>1.14(M)</b> <b>1.18(F)</b>	<b>1.13</b>
*Because the CMS risk model includes disability as an interaction term with gender, each gender is presented separately here. Bolded odds ratios are significant at p<0.05. Random effects models include a term for HHA to isolate the within-facility effect of the SES factor in question.			

In summary, these analyses show that social risk factors were associated with significantly higher odds of re-hospitalization and ED use in the first 30 days of a home health stay following an index hospitalization, and that risk adjustment decreased but did not fully explain the effect of social risk factors for both outcomes.

#### **IV. HHA Social Risk Levels, Re-Hospitalization, and ED Use Rates**

##### **A. HHA Social Risk Levels, Re-Hospitalization, and ED Use**

The next question was whether HHAs that serve a high proportion of beneficiaries with social risk factors have higher unplanned 30-day re-hospitalization rates. Table 13.7 shows the results of the provider level analyses, using data from FYs 2012-2014. Medicare beneficiaries at high-dual HHAs (the first row in the “in-group” column) had a raw re-hospitalization rate of 14.4% during the first 30 days of a home health stay, compared to 12.9% for beneficiaries at non-high-dual HHAs (the “not-in-group” column). This was equivalent to 14% higher odds of readmission for beneficiaries at high-dual HHAs. Findings were mixed for HHAs with a high proportion of beneficiaries with the other social risk factors. When risk adjustment variables were added to the model, including age, gender, comorbidities, and functional status as outlined above, the size of the effect was reduced, with the exception of high-rural. After risk adjustment, beneficiaries served by high-Hispanic HHAs had lower odds of readmission.

**Table 13.7: HHAs Serving a High Proportion of Socially At-Risk Beneficiaries, Re-Hospitalizations FYs 2012-2014**

HHA Type	In-Group Rates	Not-in-Group Rates	Odds Ratio*	Odds Ratio with Risk Adjustment
High-Dual	14.4%	12.9%	<b>1.14</b>	1.00
Low Income ZCTA	13.7%	13.0%	<b>1.10</b>	<b>1.02</b>
High-Black	14.0%	12.9%	<b>1.15</b>	<b>1.02</b>
High-Hispanic	13.2%	13.1%	1.00	<b>0.95</b>
High-Rural	13.0%	13.2%	0.99	1.01
High-Disabled	14.4%	12.9%	<b>1.19</b>	<b>1.05</b>
Bolded odds are significant at p<0.05. Odds ratios are calculated from random effects models; in this case since the characteristic in question is an HHA, the odds from a random effects model give the average effect for a beneficiary being at that type of HHA (e.g., high-dual) versus another type of HHA (e.g., non-high-dual).				

In summary, by raw rates, being cared for by an HHA with a high proportion of beneficiaries with social risk factors was associated somewhat higher odds of being readmitted in the first 30 days of HHA care following an index hospitalization, but these effects became smaller after risk adjustment.

Table 13.8 shows the results of the provider level analysis for ED use. Overall, by raw rates, being cared for by an HHA with a high proportion of beneficiaries with social risk factors was associated with higher odds of ED use in the first 30 days of home health care. One exception was beneficiaries served by high-Hispanic HHAs, who were 10% less likely to use ED services than beneficiaries at other HHAs. After risk-adjustment, beneficiaries at high-dual and high-Hispanic agencies were less likely to use ED services, while beneficiaries served by agencies in low-income areas, rural areas, or with high proportions of individuals with disabilities had higher odds of ED use.

**Table 13.8: HHAs Serving a High Proportion of Socially At-Risk Beneficiaries, ED Use FYs 2012-2014**

HHA Type	In-Group Rates	Not in-Group Rates	Odds Ratio*	Odds Ratio with Risk Adjustment
High-Dual	8.9%	9.0%	<b>1.03</b>	<b>0.95</b>
Low Income ZCTA	9.9%	8.8%	<b>1.11</b>	<b>1.05</b>
High-Black	9.3%	8.9%	<b>1.06</b>	0.98
High-Hispanic	8.2%	9.1%	<b>0.90</b>	<b>0.90</b>
High-Rural	10.1%	8.7%	<b>1.17</b>	<b>1.14</b>
High-Disabled	10.2%	8.7%	<b>1.19</b>	<b>1.06</b>
Bolded odds are significant at p<0.05. Odds ratios are calculated from random effects models; in this case since the characteristic in question is an HHA, the odds from a random effects model give the average effect for a beneficiary being at that type of HHA (e.g., high-dual) versus another type of HHA (e.g., non-high-dual).				

**B. Comparison of Individual Beneficiary Versus HHA Social Risk Factors**

To determine whether beneficiary or HHA characteristics were the dominant factor in determining readmission rates, both beneficiary and provider level characteristics were included in the same regression model. The middle column in Table 13.9a shows the odds of re-hospitalization when each factor was examined independently. These values are the same as those found in tables 13.4 and 13.7. The rightmost column of Table 13.9a shows the relative contribution of the beneficiary and provider level factors, determined by adding each social risk indicator to the same random effects model. In general, the effects seemed to be independent in that the estimates did not change much when both beneficiary and provider variables are included in the same model; the most powerful predictors of readmission were beneficiary dual enrollment or the presence of a disability (Table 13.9a).

**Table 13.9a: Beneficiary versus Provider Factors in Readmissions**

Beneficiary or Provider Level Factor	Models Run Separately for Beneficiary and Provider Factors	Models Run with Beneficiary and Provider Factors in same model
Dually-enrolled – Beneficiary	<b>1.09</b>	<b>1.09</b>
High-Dual - Provider	1.00	<b>0.98</b>
Low-income zip – Beneficiary	<b>1.03</b>	<b>1.03</b>
Low-income zip - Provider	<b>1.02</b>	1.00
Black - Beneficiary	<b>1.02</b>	<b>1.02</b>
High-Black - Provider	<b>1.02</b>	1.01
Hispanic- Beneficiary	1.00	1.02
High-Hispanic - Provider	<b>0.95</b>	<b>0.94</b>
Rural - Beneficiary	1.01	1.00
Rural - Provider	1.01	1.01
Disabled – Beneficiary (M)	<b>1.11</b>	<b>1.11</b>
Disabled – Beneficiary (F)	<b>1.13</b>	<b>1.12</b>
High-Disabled - Provider	<b>1.05</b>	<b>1.05</b>
Bolded comparisons are significant at $p < 0.05$ . All models are random effects models with full risk-adjustment variables included.		

Table 13.9b shows findings for ED use, which are similar; again, the effects seemed to be independent in that the estimates did not change much when both beneficiary and provider variables are included in the same model. The most powerful predictors of ED use without readmission were beneficiary dual enrollment, Black race, or the presence of a disability.



**Table 13.9b: Beneficiary versus Provider Factors in ED Use**

<b>Beneficiary or Provider Level Factor</b>	<b>Models Run Separately for Beneficiary and Provider Factors</b>	<b>Models Run with Beneficiary and Provider Factors in same model</b>
<b>Dually-enrolled – Beneficiary</b>	<b>1.20</b>	<b>1.21</b>
<b>High-Dual - Provider</b>	<b>0.95</b>	<b>0.91</b>
<b>Low-income zip – Beneficiary</b>	<b>1.07</b>	<b>1.06</b>
<b>Low-income zip - Provider</b>	<b>1.11</b>	<b>1.08</b>
<b>Black - Beneficiary</b>	<b>1.15</b>	<b>1.16</b>
<b>High-Black - Provider</b>	<b>0.98</b>	<b>0.95</b>
<b>Hispanic- Beneficiary</b>	<b>1.06</b>	<b>1.10</b>
<b>High-Hispanic - Provider</b>	<b>0.90</b>	<b>0.88</b>
<b>Rural - Beneficiary</b>	<b>1.09</b>	<b>1.04</b>
<b>Rural - Provider</b>	<b>1.14</b>	<b>1.12</b>
<b>Disabled – Beneficiary (M)</b>	<b>1.14</b>	<b>1.14</b>
<b>Disabled – Beneficiary (F)</b>	<b>1.18</b>	<b>1.17</b>
<b>High-Disabled - Provider</b>	<b>1.06</b>	<b>1.06</b>
Bolded comparisons are significant at $p < 0.05$ . All models are random effects models with full risk-adjustment variables included.		

## V. HHA-Level Performance Analyses

The results shown thus far are beneficiary-level analyses examining the relationship between social risk factors and the odds of readmission or ED use without readmission during the first 30 days of home health care. However, the measure is ultimately applied at the HHA level, and though there is no VBP program yet underway for this measure, facility performance can be examined on the two measures to predict what could potentially happen under the program.

Figure 13.1 shows the distribution of HHAs' 30-day risk-adjusted readmission measure performance.<sup>xviii</sup> The fiscal year 2012-2014 national raw average readmission rate was 13.1%.

<sup>xviii</sup> Note that due to measure design, negative readmission rates are mathematically possible though obviously clinically meaningless; these should be interpreted as very good performance.

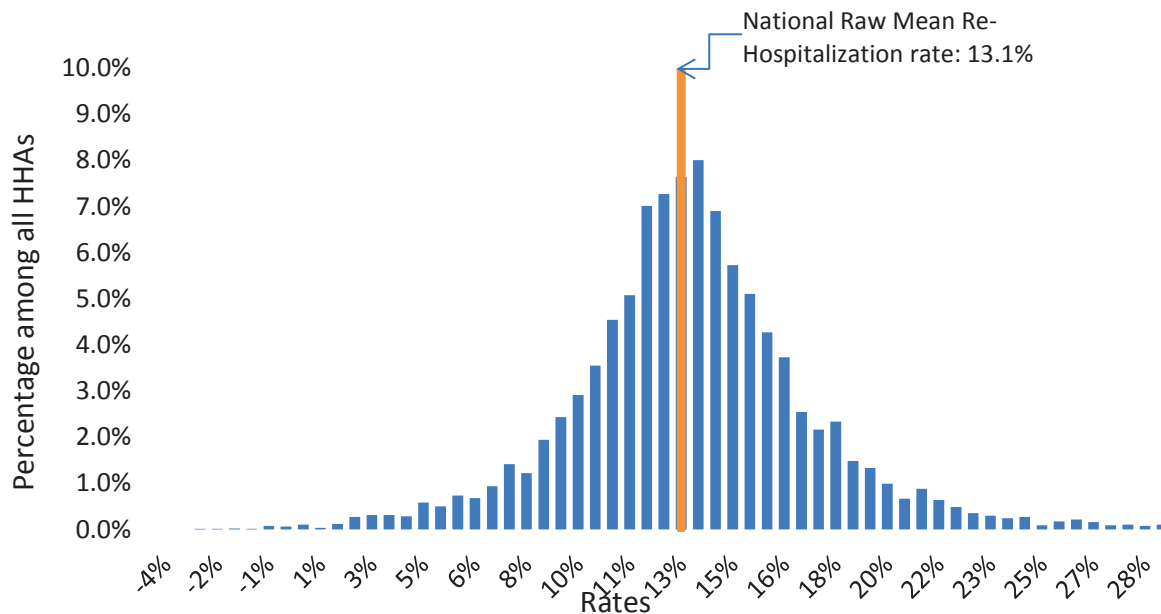
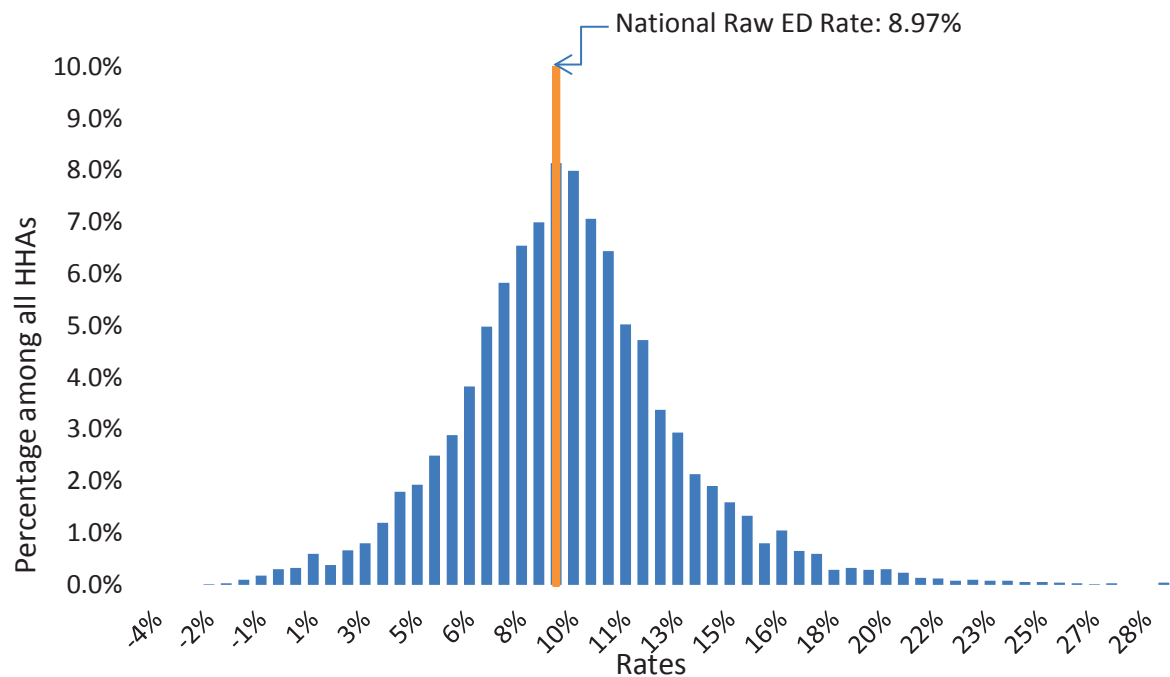
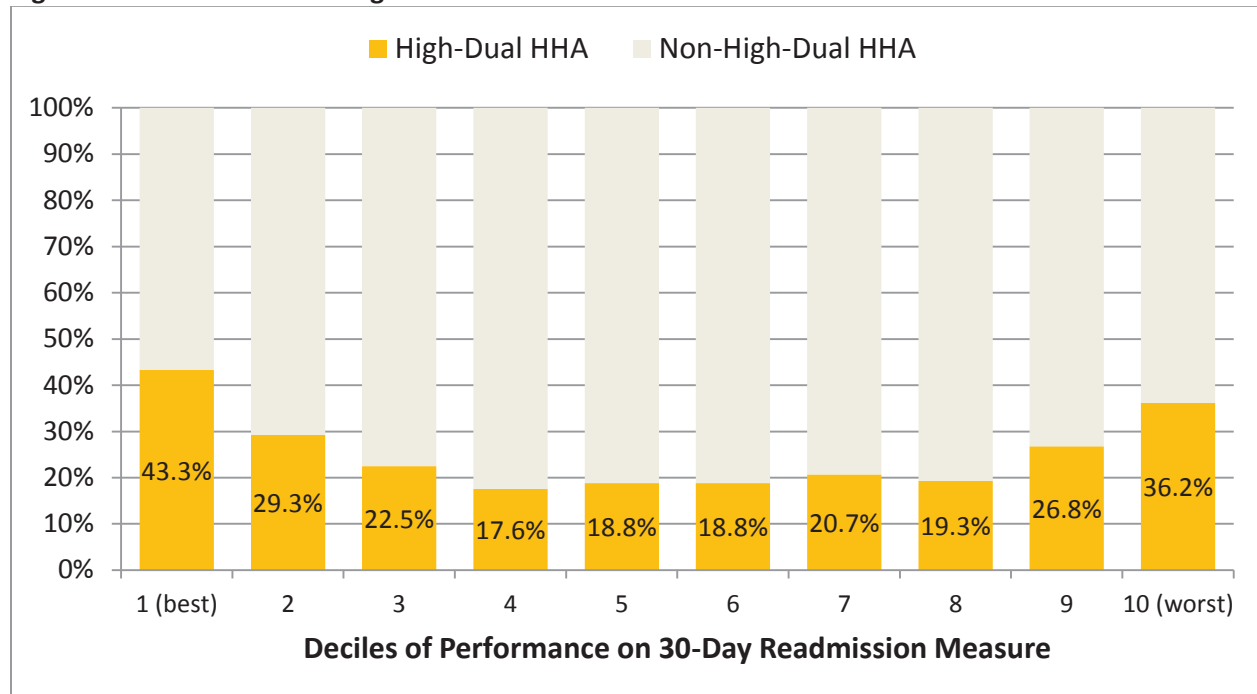
**Figure 13.1: HHA 30-Day Re-Hospitalization Measure Performance, FYs 2012-2014**

Figure 13.2 shows the distribution of all HHAs' performance on the 30-day risk-adjusted ED use without readmission measure. The FY 2012-2014 national raw ED use without readmission rate was 9.0%.

**Figure 13.2: HHA 30-Day ED Use without Re-Hospitalization Measure Performance, FYs 2012-2014**

Understanding how particular groups of interest, such as high-dual agencies, perform on these measures may provide insight into how the VBP programs might impact these providers. Performance was therefore divided into deciles for each measure, from low rates of readmission or ED use (best performance) to high rates of readmission or ED use (worst performance), and the proportion of high-dual facilities in each decile was calculated. These analyses (Figure 13.3) show that high-dual HHAs were over-represented in both the best-performing and worst-performing tails of the distribution for rehospitalization:

**Figure 13.3: Distribution of High-Dual HHAs Across Deciles of Performance on Readmission Measure**



Findings were similar for the ED use measure. These analyses suggest that, though dually-enrolled beneficiaries are much more likely to be rehospitalized and use ED services after a hospitalization, HHAs serving a high proportion of these beneficiaries are often able to achieve good risk-adjusted outcomes despite these levels of elevated risk.

## VI. Policy Options

The HHVBP model is new, and therefore there is no program data to examine. Instead, the focus of this chapter is on the relationships between social risk factors and performance on the 30-day HHA readmission and ED use without readmission measure, as discussed above. This chapter does not propose specific policy options, but instead focuses on considerations based on the analyses of the two measures to draw comparisons with the SNF chapter and to help inform discussions around HHVBP.

## VII. Key Findings, Strategies, and Considerations

### A. Key Findings

#### Underlying relationships:

- By raw rates, beneficiaries with social risk factors were much more likely to be re-hospitalized or use ED services during the first 30 days of home health care.
- CMS risk adjustment decreased the effect to some degree, but many social risk factors remained predictive of re-hospitalization and ED use at the beneficiary level. Results were more mixed at the provider level.
- In looking at the relative contribution of beneficiary-level versus provider-level effects, beneficiary dual enrollment and the presence of a disability were the dominant factors.

### B. Policy Analysis, Strategies, and Considerations

This chapter does not include specific policy options or simulations, but rather focuses on considerations relevant to HHVBP. The considerations are made in light of the policy criteria outlined in Chapter 1, and reiterated in Table 13.10.

**Table 13.10: Policy Criteria**

Policy Criteria
1. Encourages reduction in disparities in quality and outcomes
2. Protects beneficiaries' access to care by reducing disincentives to caring for high-risk populations
3. Protects providers from unfair financial stress
4. Adjusts only for the difference in performance related directly to the social risk factor, and only for what is beyond provider control
5. Promotes transparency to facilitate consumer choice
6. Supports delivery system reform and Alternative Payment Models

Strategies and considerations are outlined below. They are, as in all program chapters in this report, organized into three broad strategies that best meet the policy criteria outlined in Chapter 1. 1) Measure and report quality for beneficiaries with social risk factors; 2) Set high, fair standards for all beneficiaries; and 3) Reward and support better outcomes for beneficiaries with social risk factors.

#### **STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

Measurement and reporting are foundational for quality improvement in health care.

**CONSIDERATION 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key HHA quality and resource use measures.**

For some HHA measures (though not those examined in this chapter), additional data collection may be

needed to allow measurement and reporting of performance for beneficiaries with social risk factors on key HHA quality and resource use measures. For claims-based measures with large samples, the data are already likely adequate to do so.

Measures stratified into subgroups could allow CMS and clinicians to track and address disparities in readmission rates for beneficiaries at high social risk. Doing so may increase the ability to target quality improvement efforts at groups that may benefit most from such intervention.

**CONSIDERATION 2: When feasible, consider developing and introducing a new measure or domain on Achieving Health Equity to the HHVBP program to assess and reward facility efforts to reduce health disparities.**

The report on best practices for socially at risk beneficiaries from the National Academies of Sciences, Engineering, and Medicine recognized the prioritization of equity as a key strategy for health care organizations to deliver high-quality care to beneficiaries with social risk factors.<sup>6</sup>

To further highlight the importance of health equity and to focus agencies' attention on reducing disparities, creating a health equity measure or domain could be considered. This would enhance incentives to deliver high-value care to all beneficiaries, including beneficiaries with social risk factors. This approach would be particularly consistent with the policy criterion of encouraging reduction of disparities. A health equity domain could include performance on measures of disparity reduction, performance on outcomes for beneficiaries with social risk factors, or structural measures that address the needs of beneficiaries with social risk factors. However, measures that would comprise such a domain have not been developed, and would need to be constructed, tested, and validated prior to use.

**CONSIDERATION 3: As HHVBP is implemented, consider prospectively monitoring for potential unintended consequences. Specifically, the potential for reducing access to care for beneficiaries perceived to be at high risk of readmission, such as dually-enrolled beneficiaries, beneficiaries with disabilities or individuals with multiple comorbidities, should be tracked.**

Because in many cases HHAs have the opportunity to screen and either accept or deny beneficiaries based on clinical or financial characteristics, value-based purchasing programs could feasibly reduce access to HHA care for populations perceived to be at high risk of readmission, ED use, or other poor outcomes, particularly when significant financial risk is assumed by agencies. The potential for this unintended consequence should be carefully monitored.

**STRATEGY 2: Set High, Fair Standards for All Beneficiaries**

Given the overarching goal of improving care for all beneficiaries, providers should be held to high, fair standards regardless of the beneficiaries they serve.

**CONSIDERATION 1: The HHA readmission and ED use measures should continue to be examined to determine if adjustment for social risk factors is appropriate.**

Similar to the analyses of other settings in this report, beneficiary social risk factors were significant predictors of readmission and ED use in the post-acute setting. Interestingly, the HHA measures, like the SNF readmission measure, include many variables not included in other settings, including whether or not an individual had a disability, was able to perform activities of daily living, and his or her prior care setting, in addition to a comorbidity burden variable. However, in contrast to the SNF setting, the HHA analyses demonstrated persistent differences in readmission by social risk.

These findings, and their contrast to the SNF findings, may point out the important differences between post-acute settings in determining outcomes. The home health setting does differ from SNF in that the beneficiary is discharged from hospital to home for care, and the home health care delivery environment is more decentralized than in a facility. Factors encountered by beneficiaries in their daily lives, such as complex medication regimens, diet, physical activity, and community-based care needs (personal care, transportation, environmental modifications) may be more salient in the home health than the SNF setting, potentially associating social factors more powerfully with health outcomes.

Given this important difference in the home health setting compared to SNF, and the desire to harmonize measures across settings, further study should be undertaken to understand how social factors influence outcomes, focusing on support at home and other topics germane to the home health experience.

**CONSIDERATION 2: Program measures should be studied to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

As the HHVBP program is developed, program measures should be studied to determine whether risk adjustment can be enhanced where feasible. Particularly given the findings outlined in Consideration 1, new measures should be studied to understand the relationships between complexity, frailty, disability, and functional status and readmissions or ED use.

**STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

One of the important findings in this chapter was the wide distribution of performance among providers disproportionately serving beneficiaries with social risk factors. This suggests that achieving better

outcomes for these groups is feasible. However, in many cases it may require more effort on the part of providers, or more resources and more support, than achieving the same outcomes in a lower-risk population.

**CONSIDERATION 1: Consider providing additional financial incentives to reward agencies that achieve high quality or significant improvement for beneficiaries with social risk factors.**

One way to prioritize improving outcomes in beneficiaries with social risk factors is to provide targeted payment adjustments. Providing such incentives for achieving good outcomes in high-risk populations, be they medically or socially high-risk, could both reduce the disincentive to caring for high-risk groups and recognize that it might be more challenging to achieve low rates of readmission in high-risk populations. This consideration would provide additional reward and/or recognition to HHAs that are able to achieve a quality standard for socially or medically at-risk populations.

Parameters of such an award would need to be determined; one possible model is the bonus in the current Physician Value-based payment modifier program, which awards high-performing practices an additional bonus if they have a particularly medically complex patient population; this could be extended to a socially complex population. Alternatively, a payment adjustment could be given to agencies that achieve particularly good outcomes or improve quality specifically for socially at-risk beneficiaries, regardless of the overall patient population served.

The advantage of this approach is that it provides HHAs an additional incentive to focus on achieving good outcomes in at-risk beneficiaries, which may help reduce disparities in care and outcomes more broadly. One disadvantage is that such a bonus may only reward those high performing HHAs and not “lift all boats” or help lower performing HHAs who are serving a higher proportion of high-risk beneficiaries. Policymakers would need to decide whether the option would be implemented in a budget neutral fashion. A bonus payment could be provided as an additional payment in a non-budget neutral manner or funded via withholds from lower performing providers within the program under a budget-neutral approach.

**CONSIDERATION 2: Consider using existing or new quality improvement programs to provide targeted technical assistance to facilities that disproportionately serve beneficiaries with social risk factors to help improve quality.**

The findings presented here suggest that particular attention may need to be paid to dually-enrolled beneficiaries or beneficiaries with disabilities, who have higher raw and risk-adjusted rates of readmission and ED use. Quality improvement efforts focused on reducing readmission rates should be targeted at these individuals, and best practices shared and disseminated, where feasible. Experience from MA contracts’ experience of providing services to dually-enrolled beneficiaries, or demonstration programs from CMMI focused on understanding broader care innovations, could also help Medicare learn more about what types of care might achieve the best outcomes for beneficiaries with social risk factors receiving home health services.



**CONSIDERATION 3: Consider exploring the potential under the HHA demonstration program to test care innovations particularly focused on beneficiaries with social risk factors.**

The HHA demonstration may provide a particularly rich opportunity to determine which types of care innovations in the home health setting may particularly help beneficiaries with social risk factors achieve good outcomes.

**CONSIDERATION 4: Consider further research to examine the costs of caring for beneficiaries with social risk factors and to determine whether current payments adequately account for these differences in care needs.**

Payment policies should be examined. The HHA setting pays in a bundled fashion based in part on medical risk, but does not provide additional payments for providers based on the social risk profile of its beneficiaries, though this is done in some other care settings – most notably the DSH payments awarded to hospitals based on the social risk profile of hospitalized individuals. It is currently unknown whether or not payments based on medical risk adequately account for any differences in the costs of providing post-acute care to socially-at risk individuals. Additional analyses should examine this issue.

## VIII. References

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# CHAPTER 14: Summary of Findings, Strategies, and Considerations; Conclusions; and Next Steps

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## I. Summary of Findings

This report started by describing the debate around accounting for social risk in Medicare value-based purchasing programs. If beneficiaries with social risk factors have worse health outcomes because of factors beyond providers' control, value-based purchasing could inappropriately penalize providers that care for them. It could also result in providers becoming reluctant to care for beneficiaries with social risk factors, out of fear of incurring penalties. On the other hand, if beneficiaries with social risk factors have worse health outcomes because the providers they see provide low-quality care, value-based purchasing could be a powerful tool to drive improvements in care and reduce health disparities.

How to square the debate in the reality of the current Medicare program, where beneficiaries vary widely in their medical and social complexity, and where providers face many new programs across multiple care settings as they shift to new payment paradigms, was less simple. However, as each program was explored, it became evident that the data had revealed powerful common findings across measures and settings, which is what ultimately led to considerations that were more similar than different across programs, despite each program's singularities. These findings follow.

### A. **FINDING 1: Beneficiaries with social risk factors had worse outcomes on many quality measures, regardless of the providers they saw, and dual enrollment status was the most powerful predictor of poor outcomes.**

Beneficiaries with social risk factors had poorer outcomes on many quality measures, including process measures (e.g., cancer screening), clinical outcome measures (e.g., diabetes control, readmissions), safety (e.g., infection rates), and patient experience measures (e.g., communication from doctors and nurses), as well as higher resource use (e.g., higher spending per hospital admission episode). This was true even when comparing beneficiaries at the same hospital, health plan, ACO, physician group, or facility. Dual enrollment (enrollment in both Medicare and Medicaid) was typically the most powerful predictor of poor performance among those social risk factors examined. For the most part, these findings persisted after risk adjustment, across care settings, measure types, and programs, and were moderate in size. Three exceptions were noted: risk-adjusted mortality rates (from HVBP), risk-adjusted admissions for heart failure (from Medicare Shared Savings Program), and risk-adjusted inpatient readmissions of Medicare SNF beneficiaries to IPPS hospitals and critical access hospitals (from SNF VBP). These findings are summarized in Table 14.1:

**Table 14.1: Relationship Between Dual Enrollment Status and Performance Across Programs**

<b>Program</b>	<b>Finding for Dually-enrolled beneficiaries vs. Non-Dually-enrolled beneficiaries</b>
<b>Hospital Readmissions Reduction Program</b>	<ul style="list-style-type: none"> <li>• 10-31% higher risk-adjusted odds of readmission</li> </ul>
<b>Hospital-Acquired Conditions Reduction Program</b>	<ul style="list-style-type: none"> <li>• Higher safety event rates for 4/8 individual events; <b>lower for 2/8</b></li> </ul>
<b>Hospital Value-Based Purchasing Program</b>	<ul style="list-style-type: none"> <li>• 5-14% lower risk-adjusted odds of mortality</li> <li>• 4% higher risk-adjusted spending per episode</li> </ul>
<b>Medicare Advantage</b>	<ul style="list-style-type: none"> <li>• Performance worse on 17/19 beneficiary-level quality measures examined</li> </ul>
<b>Medicare Shared Savings Program</b>	<ul style="list-style-type: none"> <li>• 18% higher risk-adjusted odds of readmission</li> <li>• 16% higher age/gender-adjusted odds of COPD admission</li> <li>• 14% lower age/gender-adjusted odds of HF admission</li> </ul>
<b>Physician Value-Based Payment Modifier</b>	<ul style="list-style-type: none"> <li>• 11-20% higher risk-adjusted odds of readmission</li> <li>• 80-230% higher risk-adjusted odds of preventable admission</li> <li>• \$725-\$2,979 higher risk-adjusted costs</li> </ul>
<b>ESRD Quality Incentive Program</b>	<ul style="list-style-type: none"> <li>• Performance worse on 5/5 quality measures</li> </ul>
<b>Skilled Nursing Facility Readmissions</b>	<ul style="list-style-type: none"> <li>• 4% lower risk-adjusted odds of readmission</li> </ul>
<b>Home Health Readmissions and ED Use</b>	<ul style="list-style-type: none"> <li>• 9% higher risk-adjusted readmission rates</li> <li>• 18% higher risk-adjusted ED use rates</li> </ul>
Bold font indicates where dually-enrolled beneficiaries have better outcomes.	

**B. FINDING 2: Providers that disproportionately served beneficiaries with social risk factors tended to have worse performance on quality measures, even after accounting for their beneficiary mix, and this was associated with penalties under all five current value-based purchasing programs in which penalties are currently assessed.**

In every care setting, providers that disproportionately cared for beneficiaries with social risk factors tended to perform worse than their peers on quality measures. Some of these differences were driven by beneficiary mix, but some of the difference persisted even after adjusting for beneficiary characteristics. As a result, safety-net providers were more likely to face financial penalties across all but one of the Medicare value-based purchasing programs, including programs in the hospital, health plan, physician group, and facility settings. The single exception was that ACOs with a high proportion of dually-enrolled beneficiaries were more likely to share in savings under the Medicare Shared Savings Program.

However, in every setting, be it hospital, health plan, ACO, physician group, or facility, there were some providers that served a high proportion of beneficiaries with social risk factors who achieved high levels of performance.

These findings are summarized below. First, performance for providers that disproportionately served dually-enrolled beneficiaries is shown with and without accounting for the social risk profile of providers' beneficiary mix in Table 14.2. Providers disproportionately serving dually-enrolled beneficiaries generally had worse outcomes than other providers, but the magnitude of this association dropped significantly after accounting for providers' beneficiary mix, particularly for readmissions and ambulatory care-sensitive admissions:

**Table 14.2: Relationship Between Disproportionately Serving Dually-Enrolled Beneficiaries and Provider Performance Across Programs**

<b>Program</b>	<b>Performance for providers serving dually-enrolled beneficiaries,* under current program specifications</b>	<b>Performance for providers serving dually-enrolled beneficiaries, after accounting for beneficiary mix</b>
<b>Hospital Readmissions Reduction Program</b>	<ul style="list-style-type: none"> <li>9-14% higher odds of readmission</li> </ul>	<ul style="list-style-type: none"> <li>5-9% higher odds of readmission</li> </ul>
<b>Hospital-Acquired Conditions Reduction Program</b>	<ul style="list-style-type: none"> <li>9-36% higher clinically risk-adjusted odds of an event across 6 of 8 patient safety event measures</li> </ul>	<ul style="list-style-type: none"> <li>18-35% higher risk across 4 events, 2 no longer significant</li> </ul>
<b>Hospital Value-Based Purchasing Program</b>	<ul style="list-style-type: none"> <li>1% more expensive on Medicare Spending per Beneficiary measure</li> </ul>	<ul style="list-style-type: none"> <li>Same level of Medicare Spending per Beneficiary</li> </ul>
<b>Medicare Advantage</b>	<ul style="list-style-type: none"> <li>Worse performance on 7/19 beneficiary-level measures examined, better on 1</li> </ul>	<ul style="list-style-type: none"> <li>Worse performance on 2/19 patient-level measures, better on 3</li> </ul>
<b>Medicare Shared Savings Program</b>	<ul style="list-style-type: none"> <li>Similar odds of readmission</li> <li>19% higher odds of COPD admission</li> <li>Similar odds of HF admission</li> </ul>	<ul style="list-style-type: none"> <li>Similar odds of readmission</li> <li>14% higher odds of COPD admission</li> <li>Similar odds of HF admission</li> </ul>
<b>Physician Value-Based Payment Modifier</b>	<ul style="list-style-type: none"> <li>24-29% higher odds of readmission</li> <li>14-45% higher odds of acute ambulatory care sensitive admissions</li> <li>Similar to \$1,700 higher per-capita costs</li> </ul>	<ul style="list-style-type: none"> <li>18-24% higher odds of readmission</li> <li>Similar odds of acute ambulatory-care-sensitive admissions</li> <li>Similar to \$1,390 higher per-capita costs</li> </ul>
<b>End-Stage Renal Disease Quality Incentive Program</b>	<ul style="list-style-type: none"> <li>Worse performance on 1/5 measures and better performance on 1/5 measures</li> </ul>	<ul style="list-style-type: none"> <li>Worse performance on 1/5 measures and better performance on 1/5 measures</li> </ul>
<b>Skilled Nursing Facility Readmissions</b>	<ul style="list-style-type: none"> <li>10% higher odds of readmission</li> </ul>	<ul style="list-style-type: none"> <li>12% higher odds of readmission</li> </ul>
<b>Home Health Readmissions/ED Use</b>	<ul style="list-style-type: none"> <li>Similar odds of readmission</li> <li>5% lower odds of ED use</li> </ul>	<ul style="list-style-type: none"> <li>2% lower odds of readmission and ED use</li> </ul>
<p>Bold font indicates where providers serving dually-enrolled beneficiaries have better outcomes.            *For hospitals, this group is defined as the top 20% of Disproportionate Share Hospital Index. For all other providers, this group is defined as the top 20% of the share of dually-enrolled beneficiaries.</p>		

Financial performance under Medicare's value-based purchasing programs for providers that disproportionately served dually-enrolled beneficiaries on is shown in Table 14.3. These providers were more likely to face financial penalties on all but one of the Medicare value-based purchasing programs. In some cases, the same hospitals were receiving large penalties under all three hospital quality programs. One exception was noted: high-dual ACOs were more likely to share in savings under the Medicare Shared Savings Program:

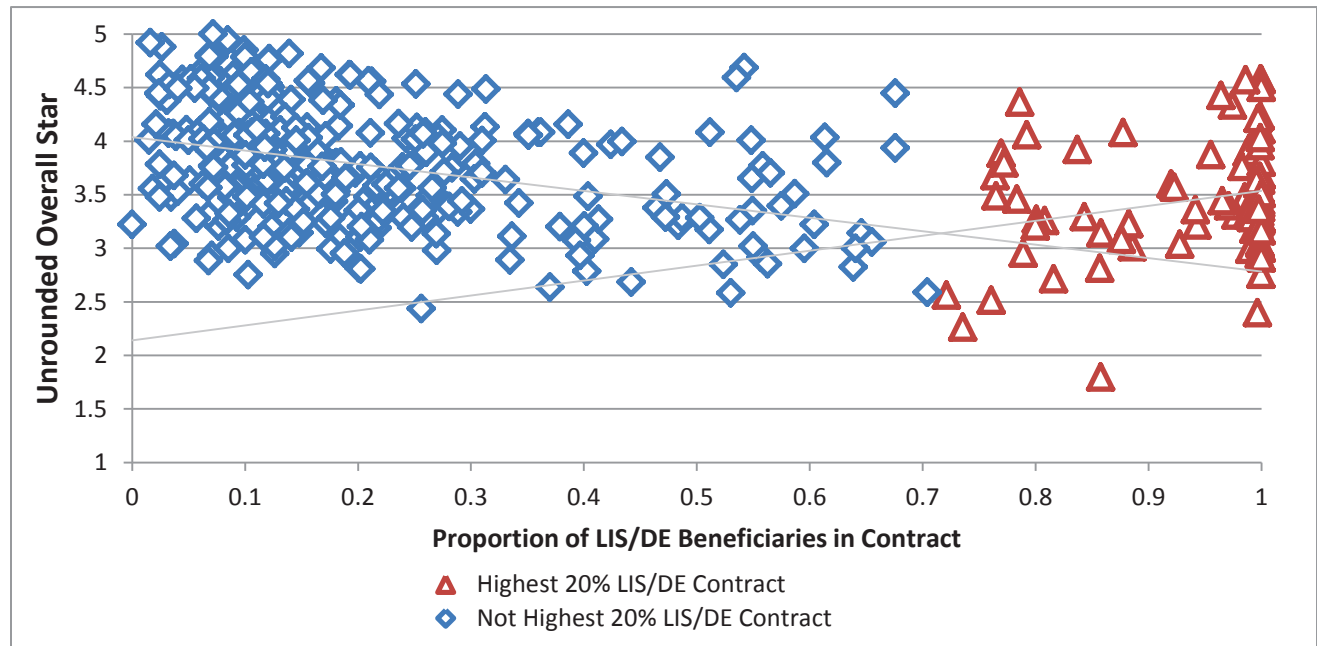
**Table 14.3: Relationship Between Providers and Plans Disproportionately Serving Dually-Enrolled Beneficiaries and Penalties Across Programs**

<b>Program</b>	<b>Performance for providers serving dually-enrolled beneficiaries* vs. other providers, under current program specifications</b>
<b>Hospital Readmissions Reduction Program</b>	7 points more likely to be penalized (87% vs. 80%), 0.02% higher penalties (as % of base DRG payments)
<b>Hospital-Acquired Conditions Reduction Program</b>	10 points more likely to be penalized (30% vs. 21%)
<b>Hospital Value-Based Purchasing Program</b>	17 points more likely to be penalized (58% vs. 41%), 0.2% higher penalties on average (as % of base DRG payments)
<b>Medicare Advantage</b>	Half as likely to achieve bonuses for 4-Star Rating (26% vs. 53% of other contracts)
<b>Medicare Shared Savings Program</b>	5 points more likely to share in savings (30% vs. 25%)
<b>Physician Value-Based Payment Modifier</b>	17% more likely to receive downward adjustment (25% vs. 8%), less likely to successfully participate
<b>End-Stage Renal Disease Quality Incentive Program</b>	Slightly more likely to be penalized (7% vs. 6%)
<b>Skilled Nursing Facility Readmissions</b>	No payment program yet operational; high-dual SNFs more likely to be in worst decile of performance
<b>Home Health Readmissions and ED Use</b>	No payment program yet operational; high-dual HHAs more likely to be in worst decile of performance (but also in best decile of performance)
Bold font indicates where providers serving dually-enrolled beneficiaries have better outcomes. *For hospitals, this group is defined as the top 20% of Disproportionate Share Hospital Index. For all other providers, this group is defined as the top 20% of the share of dually-enrolled beneficiaries.	

Despite these patterns, in every setting, there were examples of physician groups, hospitals, contracts, or facilities that served a high proportion of beneficiaries with social risk factors who achieved high levels of performance. Two examples follow. First, in Medicare Advantage, performance on the quality Star Rating was lower at higher levels of dual enrollment until roughly 60-70% dual enrollment; beyond this point, the relationship between dual and performance was actually positive. These findings suggest

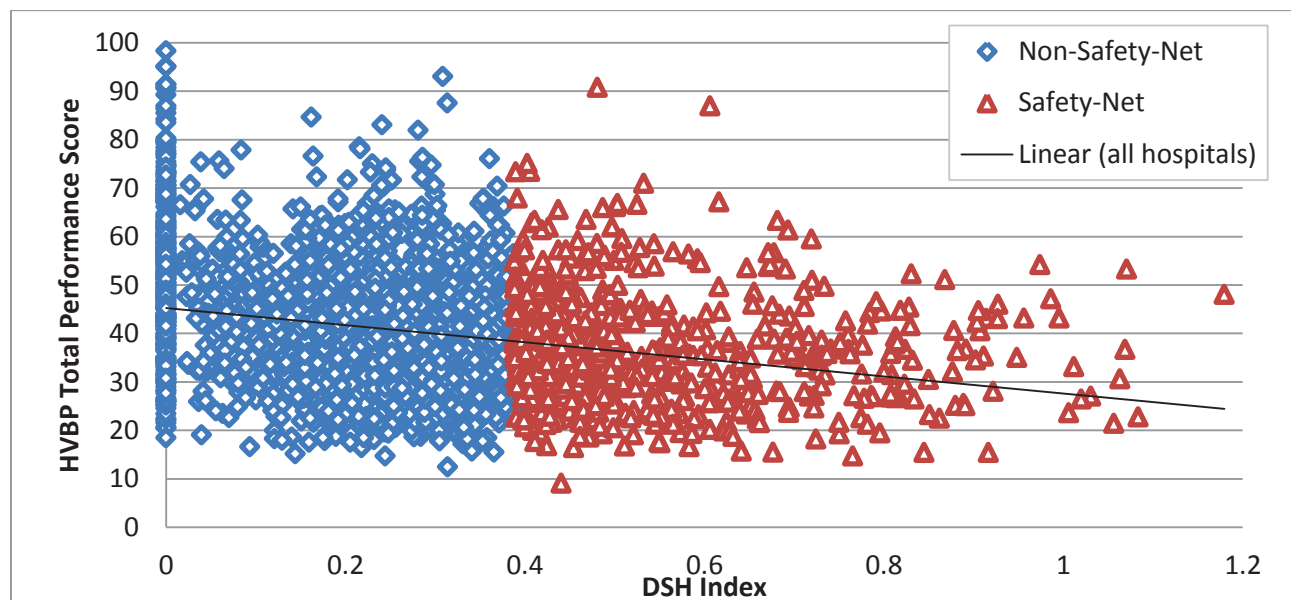
that some contracts with very high proportions of dually-enrolled beneficiaries have successfully implemented strategies and supports to achieve good outcomes in this population (Figure 14.1):

**Figure 14.1: Relationship between Proportion Dually-Enrolled/Low-Income-Subsidy Status and Medicare Advantage Quality Star Rating**



On the other hand, under the Hospital Value-Based Purchasing Program, essentially no hospitals with a DSH Index greater than 0.7 achieved a performance score greater than 60; there was no uptick in performance at higher levels of DSH Index (Figure 14.2):

**Figure 14.2: Relationship Between DSH Index and HVBP Total Performance Score**



### C. Interpretation of Findings

The first question motivating this research was “Do beneficiaries with social risk factors have worse outcomes due to their social risk profile, or because of the providers they see?” The answer is *both* – dual enrollment status is independently associated with worse outcomes, and dually enrolled beneficiaries are more likely to see lower-quality providers. The second question was “Do providers that serve beneficiaries with social risk factors perform worse due to the high proportion of beneficiaries with social risk factors, or do they provide worse care overall?” The answer, again, is *both*. Providers serving high proportions of beneficiaries with social risk factors tended to perform worse in part due to the patient population, and in part due to poor performance overall. Therefore, proposed solutions that address solely the social risk factors or solely provider performance are unlikely to mitigate the full implications of the relationship between social risk factors and performance.

Further complicating the issue, these analyses cannot determine why such patterns exist. Beneficiaries with social risk factors may have poorer outcomes due to a host of factors, including higher levels of medical risk, worse living environments, greater challenges in adherence and lifestyle, and/or bias or discrimination. Providers serving these beneficiaries may have poorer performance due to a similarly long list of factors, including fewer resources, more challenging clinical workloads, lower levels of community support, or worse quality. Many of these factors, for both beneficiaries and providers, are not easily measured with current data. Yet, understanding the “whys” is essential to finding lasting and meaningful solutions. There is clearly more work to be done.

## II. Strategies and Considerations

The Department’s goal is to develop value-based payment programs under which *all* Medicare beneficiaries receive the highest quality healthcare services. In the context of the findings above, however, it is clear that doing so will require a multipronged approach, as proposed solutions that address only the measures without considering the broader delivery system and policy context are unlikely to mitigate the full implications of the relationship between social risk factors and outcomes. Ideally, value-based purchasing programs can be leveraged to enhance, rather than threaten, access to and provision of high-quality care for beneficiaries with social risk factors.

Therefore, the Department proposes for consideration a three-part strategy (Figure 1):



**Figure 1. Strategy for Accounting for Social Risk in Medicare's Value-Based Purchasing Programs**

First, performance on quality and outcomes should be **measured and reported specifically for beneficiaries with social risk factors**. Doing so would allow policymakers and clinical leaders to identify, track, and address disparities in care.

Second, **high, fair quality standards** should be set for all beneficiaries. Whether the most “fair” standard is one that does or does not adjust for social risk will depend on the type of measure and how the considerations outlined earlier apply to that particular measure. Additionally, all measures should be studied to determine whether accounting for frailty, medical complexity, functional status, or other factors might improve their ability to fairly and accurately assess provider performance.

Meeting quality standards, particularly for outcome measures, may be harder for beneficiaries with social risk factors, who face specific challenges to achieving good health outcomes. Therefore, value-based purchasing programs should:

- a) provide **specific payment adjustments to reward achievement and/or improvement for beneficiaries with social risk factors**, and
- b) where feasible, **provide targeted support** for providers who disproportionately serve them.

First, leveraging the power of value-based purchasing to provide specific payment adjustments to reward providers for successfully achieving high quality and/or good health outcomes in beneficiaries with social risk factors may provide important incentives to focus on these individuals, and help offset any real or perceived disincentives to caring for them.

Second, providing targeted support, for example through quality improvement programs designed specifically for beneficiaries with social risk factors, is also critical to ensuring that all beneficiaries can have the best health outcomes possible. Another key component of support is ensuring that current base payments are adequate to support high-quality care for beneficiaries with social risk factors.

Considerations for how these strategies might be applied to Medicare payment programs are provided below. Note that these are general considerations, and not all apply to each program reviewed.

#### **A. STRATEGY 1: Measure and Report Quality for Beneficiaries with Social Risk Factors**

**Consideration 1: Consider enhancing data collection and developing statistical techniques to allow measurement and reporting of performance for beneficiaries with social risk factors on key quality and resource use measures.**

The ability to measure and track quality, outcomes, and costs for beneficiaries with social risk factors over time is crucial as policymakers and providers seek to reduce disparities and improve care for these groups. However, there are two things that would need to be addressed for this to be feasible: first, data would need to be collected on enough beneficiaries for performance assessment by subgroup; and second, statistical techniques to allow calculation for subgroups would need to be developed.

**Consideration 2: Consider developing and introducing health equity measures or domains into existing payment programs to measure disparities and incent a focus on reducing them.**

Quality measures help providers prioritize areas for particular focus, and specific measures targeting equity within existing value-based purchasing programs can therefore incent a focus on reducing disparities. This could be achieved by adding a health equity measure or domain to existing programs.

**Consideration 3: Prospectively monitor the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors.**

Many of the programs examined in this report are new or in evolution. Prospectively monitoring the financial impact of Medicare payment programs on providers disproportionately serving beneficiaries with social risk factors is critical as the programs continue to change. One example of such prospective study is the section in this report examining the hospital-wide readmission measure, which has been proposed for implementation in the HRRP. Analyses here demonstrate that moving to such a measure, in the absence of other changes to the program, could disproportionately impact the safety net. Similarly, analyses in this report examining future changes to the HACRP demonstrate that these may negatively impact safety-net hospitals. These types of analyses are important for policymakers to consider as Medicare's value-based purchasing programs continue to evolve.

**B. STRATEGY 2: Set High, Fair Quality Standards for All Beneficiaries**

**Consideration 1: Measures should be examined to determine if adjustment for social risk factors is appropriate; this determination will depend on the measure and its empirical relationship to social risk factors.**

There is not an all-encompassing approach to whether or not measures should be adjusted for social risk. These decisions should consider the benefits and concerns of adjustment discussed above. Additionally, empirical evidence on the relationship between the social risk factor and the outcome, including whether there is evidence that need or complexity is driving differences in performance, or if the differences in performance are related to true differences in the quality of care delivered to beneficiaries with social risk factors, should be considered. Such decisions should be continuously evaluated as new data on social risk and better data on medical risk become available and as new measures are introduced into the programs.

**Consideration 2: The measure development community should continue to study program measures to determine whether differences in health status might underlie the observed relationships between social risk and performance, and whether better adjustment for health status might improve the ability to differentiate true differences in performance between providers.**

Some of the observed relationship between social risk factors and performance on quality measures may be the result of underlying differences in medical complexity, frailty, disability, and/or functional status. For example, dually-enrolled beneficiaries are more likely to have poor functional status, and therefore may be more likely to be readmitted after a hospitalization. However, data on these factors are not broadly available and will require further development. In order for value-based purchasing programs to be as accurate as possible, and to avoid unfairly penalizing providers that serve socially or medically complex beneficiaries, both quality and resource use measures should be continuously improved to account for differences in these and other components of medical risk.

**C. STRATEGY 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors**

**Consideration 1: Consider creating targeted financial incentives within value-based purchasing programs to reward achievement of high quality and good outcomes, or significant improvement, among beneficiaries with social risk factors.**

Achievement and/or improvement for beneficiaries with social risk factors should be rewarded, and this could be done via payment adjustments within existing value-based purchasing programs to reward providers that do so. Leveraging the power of value-based purchasing to provide specific payment adjustments to reward providers for successfully achieving high quality and/or good health outcomes in beneficiaries with social risk factors may provide important incentives for doing so, and help offset any real or perceived disincentives under value-based purchasing programs to caring for these beneficiaries. Such opportunities would also highlight the need to focus on these groups to improve outcomes.

**Consideration 2: Consider using existing or new quality improvement programs to provide targeted support and technical assistance to providers that serve beneficiaries with social risk factors.**

Improving care delivery by providers serving at-risk populations would serve both to reduce disproportionate penalty burdens on these providers, and more importantly, to improve care for the most socially at-risk Medicare beneficiaries.

**Consideration 3: Consider developing demonstrations or models focusing on care innovations that may help achieve better outcomes for beneficiaries with social risk factors.**

One promising strategy for identifying and testing innovative strategies that may meet the unique needs of beneficiaries with social risk factors is via demonstrations or models. Examples include the demonstration programs in Medicare Advantage that focus on coordinating benefits between Medicare and Medicaid, and CMMI's Accountable Health Communities model.

**Consideration 4: Consider further research to examine the costs of achieving good outcomes for beneficiaries with social risk factors and to determine whether current payments adequately account for any differences in care needs.**

It might require more resources to achieve good outcomes for beneficiaries with social risk factors, but how much and what type of resources is poorly understood. Future research should determine whether current payments, typically based only on differences in medical risk, adequately account for these differences in care needs. Note that this is a different consideration than additional value-based purchasing adjustments as outlined in Consideration 1 above – this consideration instead refers specifically to whether providers should be paid more to care for beneficiaries with social risk factors via higher base payments, regardless of performance. Disproportionate Share Hospital payments in the hospital setting are one current example of such add-on payments for social risk, and payments to MA contracts to provide care for beneficiaries are also higher for beneficiaries with social risk factors. However, currently, no such provision exists for physicians in the outpatient setting, skilled nursing facilities, dialysis facilities, and other care types. This should be studied.

Table 14.4 demonstrates how these considerations were applied to programs analyzed in this report:

Table 14.4: Application of Considerations to Programs in this report

Strategies	Considerations	HRRP	HACRP	HVBP	MA Quality Star Program	Medicare Shared Savings Program	Physician VM	ESRD QIP	SNF VBP	HHVBP
Strategy 1: Measure and Report Quality for Beneficiaries with Social Risk Factors	• Pursue reporting for beneficiaries with social risk factors	✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Develop health equity measures	n/a <sup>1</sup>	n/a <sup>1</sup>	✓	✓	✓	✓	✓	✓	✓
	• Prospectively monitor program impact on providers disproportionately serving beneficiaries with social risk factors	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strategy 2: Set High, Fair Quality Standards for All Beneficiaries	• Consider measures for adjustment on a case-by-case basis	✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Improve risk adjustment for health status in program measures	✓	✓	✓	✓	✓	✓	✓	✓	✓
Strategy 3: Reward and Support Better Outcomes for Beneficiaries with Social Risk Factors	• Provide payment adjustments to reward achievement and/or improvement in beneficiaries with social risk factors	✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Use existing or new QI to support providers that serve beneficiaries with social risk factors	✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Encourage demos / models focusing on beneficiaries with social risk factors <sup>2</sup>	✓	✓	✓	✓	✓	✓	✓	✓	✓
	• Conduct research on the costs of caring for beneficiaries with social risk factors	✓	✓	✓	✓	✓	✓	✓	✓	✓
n/a=not applicable. 1= Program has a statutorily set list or type of measures; thus this consideration is not applicable 2=Many of these programs do not have demonstration/model authority; the concept would be to design demonstrations or models that addressed key issues salient to beneficiaries with social risk factors, which might influence outcomes under these programs. HRRP=Hospital Readmissions Reduction Program; HVBP=Hospital Value-Based Purchasing Program; HACRP=Hospital-Acquired Conditions Reduction Program; MA=Medicare Advantage; Medicare Shared Savings Program=Medicare Shared Savings Program; VM=Value-based payment modifier; ESRD QIP=End-Stage Renal Disease Quality Incentive Program; SNF VBP=Skilled Nursing Facility Value-Based Purchasing; HHVBP=Home Health Value-Based Purchasing										

### III. Conclusions

Social factors are powerful determinants of health. In Medicare, beneficiaries with social risk factors have worse outcomes on many quality measures, including measures of processes of care, intermediate outcomes, outcomes, safety, and patient/consumer experience, as well as higher costs and resource use. Beneficiaries with social risk factors may have poorer outcomes due to higher levels of medical risk, worse living environments, greater challenges in adherence and lifestyle, and/or bias or discrimination. Providers serving these beneficiaries may have poorer performance due to fewer resources, more challenging clinical workloads, lower levels of community support, or worse quality.

The scope, reach, and financial risk associated with value-based and alternative payment models continue to widen. There are three key strategies that should be considered as Medicare aims to administer fair, balanced programs that promote quality and value, provide incentives to reduce disparities, and avoid inappropriately penalizing providers that serve beneficiaries with social risk factors. **Measuring and reporting quality for beneficiaries with social risk factors**, setting **high, fair quality standards for all beneficiaries**, and the **provision of targeted rewards and supports for better outcomes in beneficiaries with social risk factors**, may help ensure that all Medicare beneficiaries can achieve the best health outcomes possible.

### IV. Next Steps

The findings outlined in this report represent only the beginning of a body of necessary work around fair and accurate quality measurement in the context of Medicare's increasing use of value-based purchasing programs. The IMPACT Act lays out specific additional requirements for Study B, including the examination of specific social risk factors not currently available in Medicare data such as health literacy, limited English proficiency, and Medicare beneficiary activation (the degree to which beneficiaries have the knowledge, skill, and confidence to manage their health and health care). Based on the findings in this report, future work may also include examining the impact of measuring and accounting for functional status or frailty on the relationship between social risk factors and performance, and identifying care innovations associated with the achievement of good health outcomes for beneficiaries with social risk factors.

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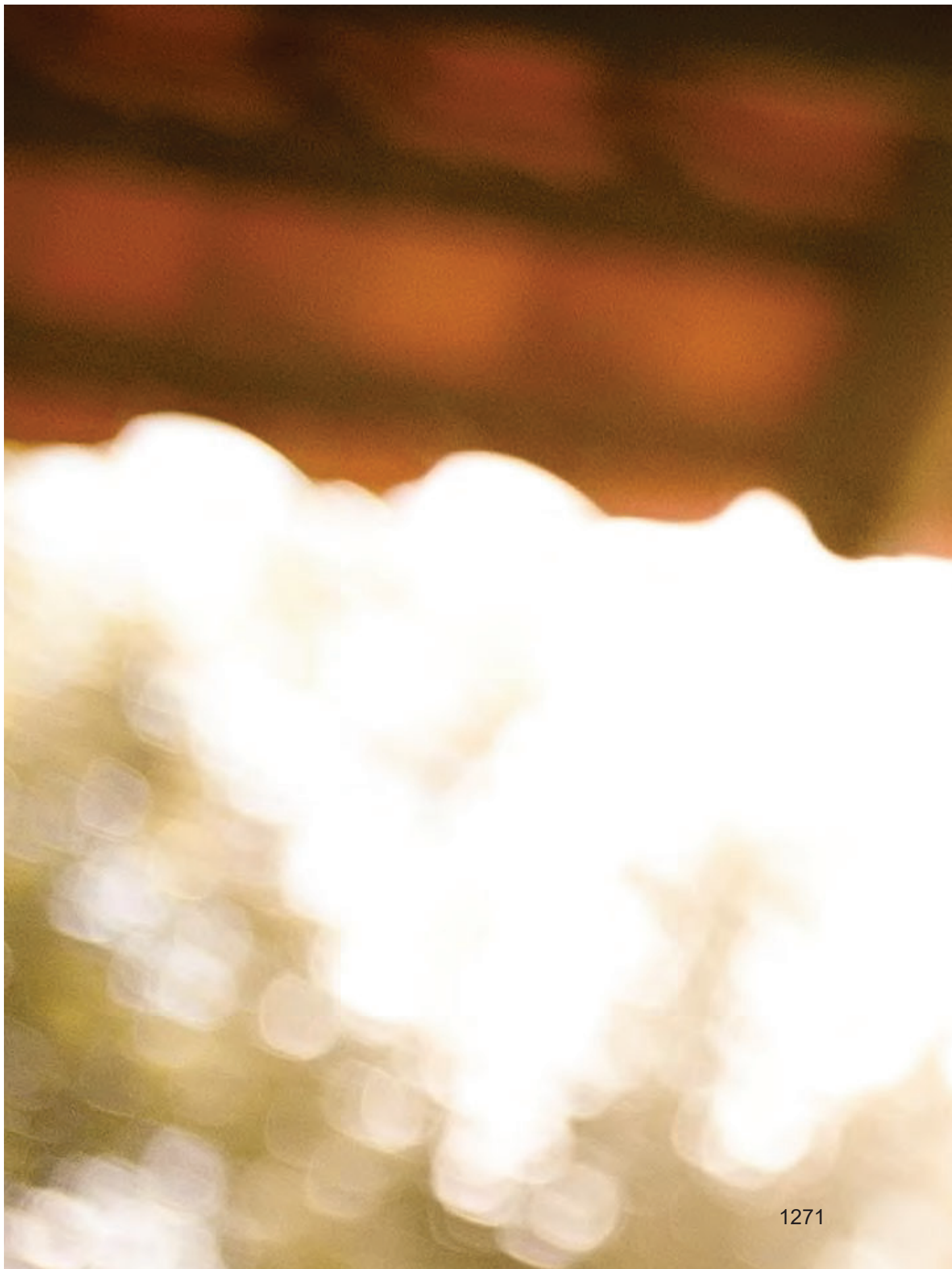


- **Stratified Reporting**
- Mapping Medicare Disparities (MMD) Tool
- Data Tools

## Stratified Reporting



To comprehensively address and eliminate health disparities, it is necessary to measure and publicly report – in a standardized and systematic way – the nature and extent of health care disparities. The CMS Office of Minority Health allows you to access reports by race and ethnicity, geography, and gender, and provides information on using CMS data sets. These stratified reports provide useful information for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally and linguistically appropriate quality improvement interventions and strategies.



## **Trends in Racial, Ethnic, Sex and Rural-Urban Inequities in Health Care in Medicare Advantage: 2009-2018 (PDF)**

The following report summarizes inequities in the quality of care delivered to Medicare beneficiaries enrolled in Medicare Advantage plans nationwide from 2009 to 2018. The report examines racial, ethnic, sex, and rural-urban differences in quality of health care beginning in 2009 and identifies how scores for each group have changed over time, pointing out health inequities that persisted until 2018.

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## **Medicare Advantage Quality Care Data Stratified by Dual Eligibility or Eligibility for Low-Income Subsidy**

View the newly released Medicare Advantage quality care data, which includes information about differences in clinical care by dual eligibility for Medicare and Medicaid or eligibility for a Low-Income Subsidy (DE/LIS status). The data also examines how differences based on DE/LIS status vary by race and ethnicity and between rural and urban areas.



[2023 Disparities in Health Care in Medicare Advantage Associated with Dual Eligibility or Eligibility for a Low-Income Subsidy and Disability \(PDF\)](#)



[2021 Disparities in Health Care in Medicare Advantage Associated with Dual Eligibility or Eligibility for a Low-Income Subsidy \(PDF\)](#)

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## **Part C and D Performance Data Stratified by Race, Ethnicity, and Gender**

The following reports describe the quality of health care received by people who are enrolled in Medicare Advantage plans nationwide, highlighting racial and ethnic differences in health care experiences and comparing the quality of care for men and women.

### **2023 Stratified Reports**

[April 2023](#)

### **2022 Stratified Reports**

[April 2022](#)

**2021 Stratified Reports**

[April 2021](#)

**2020 Stratified Reports**

[April 2020](#)

**2019 Stratified Reports**

[April 2019](#)

**2018 Stratified Reports**

[April 2018](#)

**2017 Stratified Reports**

[April 2017](#)

**2016 Stratified Reports**

[November 2016](#)

**2015 Stratified Reports**

[April 2015](#)

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## **Part C and D Performance Data Stratified by Geography (Rural/Urban)**

The following reports describe the quality of health care received by people who are enrolled in Medicare Advantage plans nationwide, highlighting racial and ethnic differences in health care experiences and comparing the quality of care for men and women.

### **2022 Stratified Reports**

[November 2022](#)

### **2020 Stratified Reports**

[November 2020](#)

### **2019 Stratified Reports**

[November 2019](#)

### **2018 Stratified Reports**

[November 2018](#)



## Questions

The CMS Office of Minority Health welcomes your questions about the stratified data contained in these files or how health plans could utilize these data for quality improvement purposes, please contact CMS Health Equity Technical Assistance at: [HealthEquityTA@cms.hhs.gov](mailto:HealthEquityTA@cms.hhs.gov).

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# Disparities in Health Care in Medicare Advantage Associated with Dual Eligibility or Eligibility for a Low-Income Subsidy



Publication Date September 2021





## Preface

This report presents summary information on the performance of Medicare Advantage (MA) plans on specific measures of quality of health care reported in 2019, which corresponds to care received in 2018. Specifically, this report compares the quality of clinical care for dual-eligible (DE) beneficiaries (i.e., beneficiaries who qualify for both Medicare and Medicaid) and Medicare beneficiaries who are eligible for a Part D Low-Income Subsidy (LIS) with the quality of care for beneficiaries who are neither DE nor LIS. We refer to the former group as *DE/LIS beneficiaries* and the latter group as *non-DE/LIS beneficiaries*. We also refer to *DE/LIS status*, which indicates whether a beneficiary is DE/LIS. In addition to examining overall differences by DE/LIS status, we look at how differences by DE/LIS status vary across racial and ethnic groups and between rural and urban areas.

This research was funded by the Centers for Medicare & Medicaid Services and carried out within the Quality Measurement and Improvement Program in RAND Health Care.

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# Contents

Executive Summary .....	vi
Figure 1. Disparities in Clinical Care by DE/LIS Status .....	x
Figure 2. Disparities in Clinical Care by DE/LIS Status Within Racial and Ethnic Groups .....	xi
Figure 3. DE/LIS Disparities in Clinical Care Within Urban and Rural Areas .....	xii
Clinical Care Measures Included in This Report .....	xiii
Abbreviations Used in This Report .....	xv
Overview and Methods .....	1
Section I: DE/LIS Disparities in Health Care in Medicare Advantage.....	6
Disparities in Clinical Care by DE/LIS Status .....	7
Prevention and Screening.....	9
Respiratory Conditions .....	12
Cardiovascular Conditions .....	15
Diabetes .....	19
Musculoskeletal Conditions.....	26
Behavioral Health .....	28
Medication Management and Care Coordination.....	35
Overuse/Appropriateness .....	40
Access/Availability of Care.....	47
Section II: DE/LIS Disparities by Race and Ethnicity in Health Care in Medicare Advantage .....	48
Disparities in Clinical Care by DE/LIS Status Within Racial and Ethnic Groups .....	49
Prevention and Screening.....	53
Respiratory Conditions .....	56
Cardiovascular Conditions .....	59
Diabetes .....	63
Musculoskeletal Conditions.....	70
Behavioral Health .....	72
Medication Management and Care Coordination.....	79
Overuse/Appropriateness .....	84
Access/Availability of Care.....	91
Section III: DE/LIS Disparities in Health Care in Medicare Advantage Within Urban and Rural Areas .....	92
DE/LIS Disparities in Clinical Care Within Urban and Rural Areas .....	93
Prevention and Screening.....	96
Respiratory Conditions .....	99
Cardiovascular Conditions .....	102
Diabetes .....	106

Musculoskeletal Conditions.....113

Behavioral Health .....115

Medication Management and Care Coordination.....122

Overuse/Appropriateness .....127

Access/Availability of Care.....134

Appendix: Data Sources and Methods .....135

References .....137

# Executive Summary



This report presents summary information on the performance of Medicare Advantage (MA) plans on specific measures of quality of health care reported in 2019 (hereafter, “Reporting Year 2019”), which corresponds to care received in 2018 (also referred to as “Measurement Year 2018”). Specifically, this report compares the quality of clinical care for dual-eligible (DE) beneficiaries (i.e., beneficiaries who qualify for both Medicare and Medicaid) and Medicare beneficiaries who are eligible for a Low-Income Subsidy (LIS)<sup>1</sup> with the quality of care for beneficiaries who are neither DE nor LIS-eligible. We refer to the former group as *DE/LIS beneficiaries* and the latter group as *non-DE/LIS beneficiaries*. We also refer to *DE/LIS status*, which indicates whether a beneficiary is DE/LIS. In addition to examining overall differences by DE/LIS status, the report looks at how differences by DE/LIS status vary across racial and ethnic groups and between rural and urban areas.

The report is based on an analysis of Healthcare Effectiveness Data and Information Set (HEDIS) data on the quality of care delivered to Medicare beneficiaries enrolled in MA plans. HEDIS is composed of information collected from medical records and administrative data on the clinical quality of care that MA beneficiaries receive for a variety of medical issues, including diabetes, cardiovascular disease, and chronic lung disease.

### ***Disparities in Health Care in Medicare Advantage by DE/LIS Status***

DE/LIS disparities in clinical care were widespread: DE/LIS MA beneficiaries had worse results than non-DE/LIS MA beneficiaries for 54 percent of measures, similar results for 41 percent of measures, and better results for 5 percent of measures (see Figure 1, which is also shown at the beginning of Section I of this report).<sup>2</sup> Differences between DE/LIS and non-DE/LIS beneficiaries were largest in the areas of follow-up after hospitalization for mental illness (an 11-percentage-point deficit for DE/LIS beneficiaries) and avoiding potentially harmful drug-disease interactions in elderly patients with dementia and a history of falls (in each case, a 9-percentage-point deficit for DE/LIS beneficiaries).

### ***DE/LIS Disparities by Race and Ethnicity in Health Care in Medicare Advantage***

Although the pattern of generally worse results for DE/LIS beneficiaries than for non-DE/LIS beneficiaries held for all four racial and ethnic groups examined, the pattern was less consistent for Hispanic beneficiaries than for other groups (see Figure 2, which is also shown at the beginning of Section II of this report). Among Asian or Pacific Islander (API), Black, and White beneficiaries, those who were DE/LIS had worse results on clinical care measures much more often than they had better results on those measures.

- Among API beneficiaries, those who were DE/LIS had worse results on 33 percent of measures and better results on 3 percent of measures. Differences between API DE/LIS beneficiaries and API non-DE/LIS beneficiaries were largest in the areas of avoiding potentially harmful drug-disease interactions in elderly patients with dementia and a history of falls (15-percentage-point and 9-percentage-point deficits, respectively, for DE/LIS beneficiaries) and osteoporosis management for women who had a fracture (11-percentage-point deficit for DE/LIS beneficiaries).
- Among Black beneficiaries, those who were DE/LIS had worse results on 38 percent of measures and better results on 5 percent of measures. Differences between Black DE/LIS beneficiaries and Black non-DE/LIS beneficiaries were largest in the areas of blood pressure

<sup>1</sup> The LIS is available under the Medicare Part D prescription drug program.

<sup>2</sup> Here, we use *similar* to characterize differences that are not statistically significant, fall below a magnitude threshold, or both, as described in the appendix. We use *worse* and *better* to characterize differences that are statistically significant and reach or exceed a magnitude threshold.



control for patients with diabetes (a 13-percentage-point deficit for DE/LIS beneficiaries), avoiding potentially harmful drug-disease interactions in elderly patients with dementia (an 11-percentage-point deficit for DE/LIS beneficiaries), and use of bronchodilators in the management of chronic obstructive pulmonary disease (COPD) (a 10-percentage-point deficit for non-DE/LIS beneficiaries).

- Among White beneficiaries, those who were DE/LIS had worse results on 56 percent of measures and better results on 5 percent of measures. Differences between White DE/LIS beneficiaries and White non-DE/LIS beneficiaries were largest in the areas of breast cancer screening (a 12-percentage point deficit for DE/LIS beneficiaries) and avoiding potentially harmful drug-disease interactions in elderly patients with dementia and a history of falls (12-percentage point and 13-percentage point deficits, respectively, for DE/LIS beneficiaries).
- Among Hispanic beneficiaries, those who were DE/LIS had worse results on 23 percent of measures and better results on 18 percent of measures. Differences between Hispanic DE/LIS beneficiaries and Hispanic non-DE/LIS beneficiaries were largest in the areas of use of bronchodilators and corticosteroids in the management of COPD (18-percentage-point and 15-percentage-point deficits, respectively, for non-DE/LIS beneficiaries) and follow-up after hospitalization for mental illness (a 13-percentage-point deficit for DE/LIS beneficiaries).

### ***DE/LIS Disparities in Health Care in Medicare Advantage in Urban and Rural Areas<sup>3</sup>***

Disparities in clinical care by DE/LIS status were observed more often in urban areas than in rural areas (see Figure 3, which is also shown at the beginning of Section III of this report). In urban areas, DE/LIS beneficiaries had worse results than non-DE/LIS beneficiaries on 56 percent of clinical care measures and better results on 5 percent of clinical care measures. In rural areas, DE/LIS beneficiaries had worse results than non-DE/LIS beneficiaries on one-third of clinical care measures and better results on 8 percent of clinical care measures. Differences between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries were largest in the areas of follow-up after hospitalization for mental illness (a 9-percentage-point deficit for DE/LIS beneficiaries) and avoiding potentially harmful drug-disease interactions in elderly patients with dementia and a history of falls (10-percentage-point and 9-percentage-point deficits, respectively, for DE/LIS beneficiaries). Differences between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries were largest in the areas of follow-up after hospitalization for mental illness (a 20-percentage-point deficit for DE/LIS beneficiaries), initiation of alcohol or other drug (AOD) treatment (a 17-percentage-point deficit for non-DE/LIS beneficiaries), and use of bronchodilators in the management of COPD (a 12-percentage-point deficit for non-DE/LIS beneficiaries).

### ***Conclusion***

In evaluating differences by DE/LIS status in the quality of health care received in 2018 by MA beneficiaries at the national level, this report found that DE/LIS beneficiaries often received worse clinical care than non-DE/LIS beneficiaries. Future research is needed to understand the causes of this pattern. Disparities for DE/LIS beneficiaries were less common among Hispanic beneficiaries than among API, Black, and White beneficiaries. Of these three racial/ethnic groups, DE/LIS disparities were most

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<sup>3</sup> Beneficiaries were classified as living in a rural or urban area according to the ZIP code of their mailing address and the corresponding U.S. Census Bureau core-based statistical area (CBSA). CBSAs consist of the county or counties associated with at least one core urban area plus adjacent counties with a high degree of social and economic integration with the core area. Metropolitan statistical areas contain a core urban area with a population of 50,000 or more. Micropolitan statistical areas contain a core urban area of at least 10,000 but less than 50,000 people. For this report, any beneficiary residing within a metropolitan statistical area was classified as an urban resident; any beneficiary living in a micropolitan statistical area or outside a CBSA was classified as a rural resident.

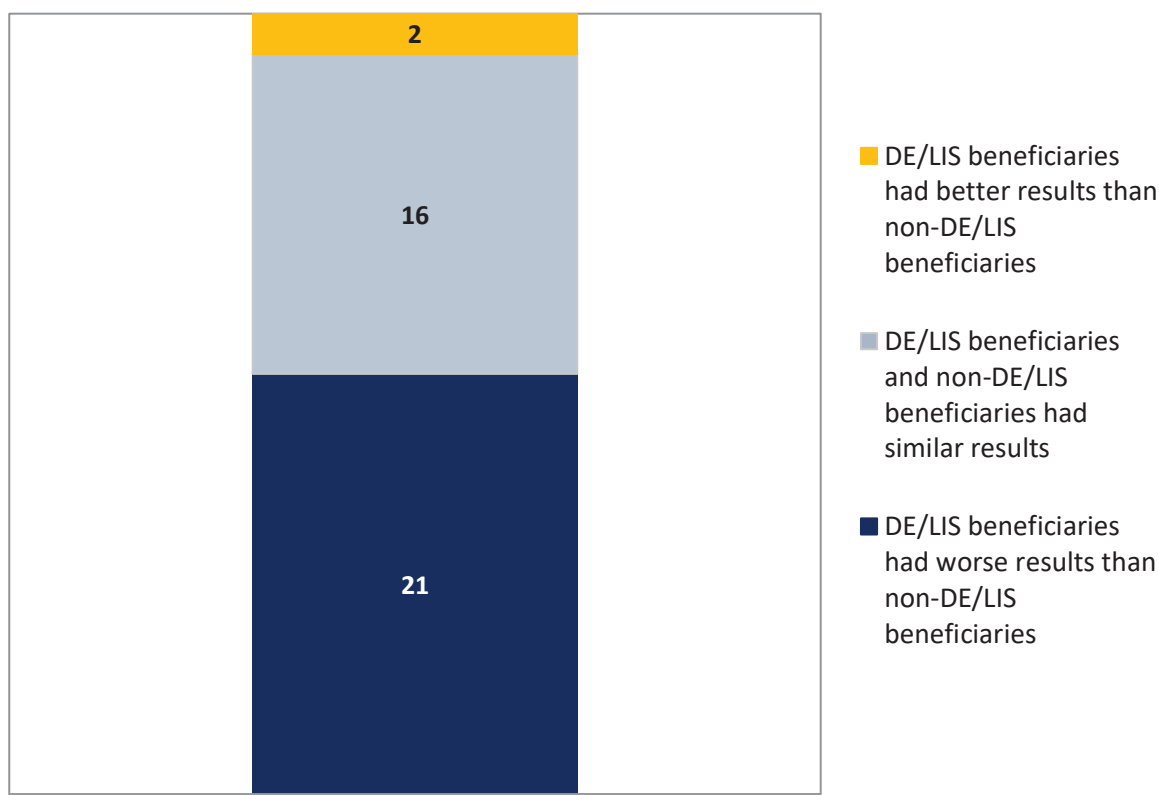
common among White beneficiaries. Future research should examine the extent to which the relatively smaller disparities for Hispanic beneficiaries might involve the widespread availability of linguistically appropriate care for Hispanic DE/LIS beneficiaries (Anhang Price et al., 2015).<sup>4</sup> For some measures, it may be that a small difference or no difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries reflects poor quality of care for Hispanic non-DE/LIS beneficiaries. Finally, this analysis revealed more-pronounced disparities in clinical care for DE/LIS beneficiaries in urban than in rural areas. Additional research is needed to better understand the mechanisms for this finding, including whether DE/LIS beneficiaries experience challenges in accessing the best providers in urban areas or whether DE/LIS and non-DE/LIS beneficiaries have different experiences with the same providers.

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<sup>4</sup> Anhang Price et al., 2015, found smaller disparities in Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey data for Hispanic beneficiaries in contracts with higher proportions of Hispanic and Spanish-preferring beneficiaries and suggested that linguistically appropriate care might be a mechanism for this finding. It is also the case that Hispanic DE/LIS beneficiaries are more likely than Hispanic non-DE/LIS beneficiaries to be enrolled in plans with a high concentration of Hispanic beneficiaries (Weinick et al., 2014), including Dual Eligible Special Needs Plans. Thus, Hispanic DE/LIS beneficiaries may be more likely than Hispanic non-DE/LIS beneficiaries to be in a plan with appropriate linguistic services. This may provide a benefit not seen for other DE/LIS groups.

## Figure 1. Summary of Disparities in Clinical Care by DE/LIS Status

Number of clinical care measures for which DE/LIS beneficiaries had results that were worse than, similar to, or better than results for non-DE/LIS beneficiaries in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

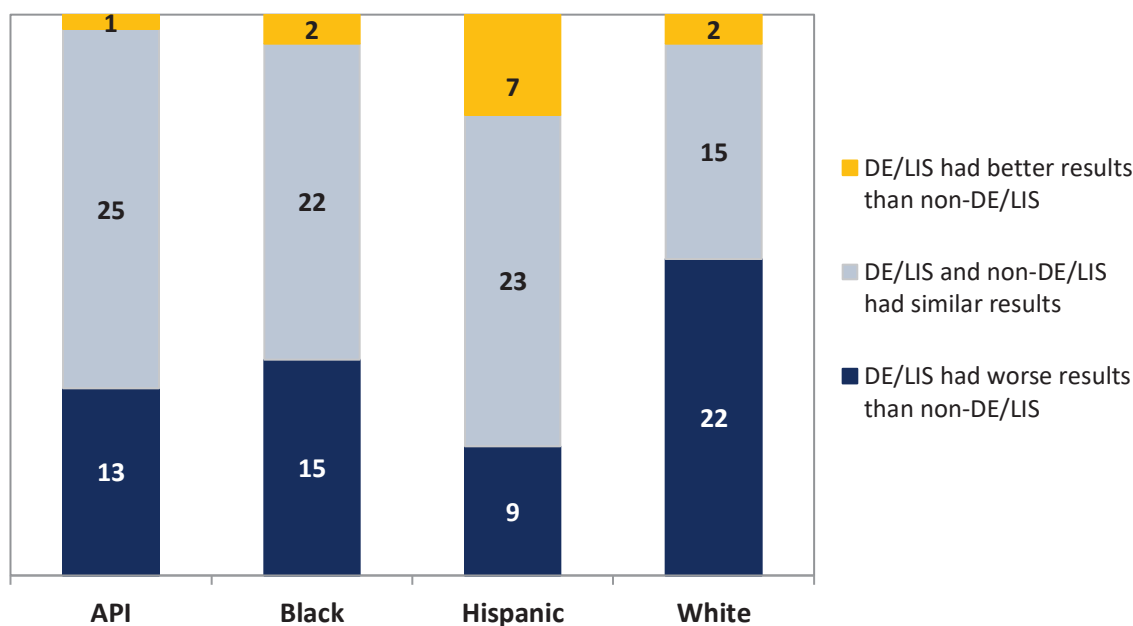
The relative difference between DE/LIS and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**Figure 2. Summary of Disparities in Clinical Care by DE/LIS Status Within Racial and Ethnic Groups**

Number of clinical care measures for which DE/LIS beneficiaries of selected racial and ethnic groups had results that were worse than, similar to, or better than results for non-DE/LIS beneficiaries in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races. Three of the values reported in this chart had low precision; one is among the 13 instances in which API DE/LIS beneficiaries had worse results than API non-DE/LIS beneficiaries, while the other two are among the 25 instances in which API DE/LIS and API non-DE/LIS beneficiaries had similar results.

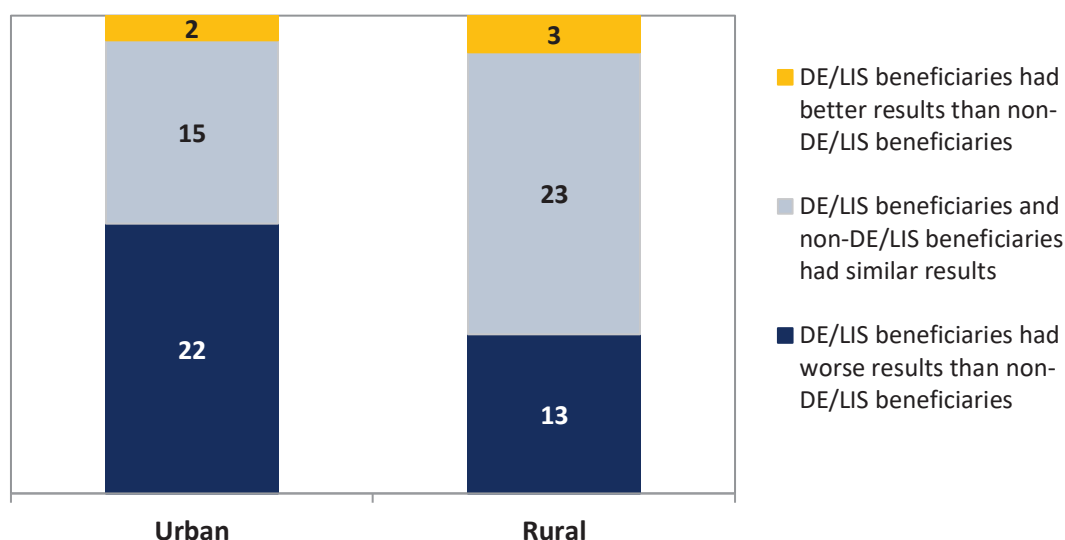
Within each racial or ethnic group, the relative difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### Figure 3. Summary of DE/LIS Disparities in Clinical Care Within Urban and Rural Areas

Number of clinical care measures for which urban and rural residents who were DE/LIS had results that were worse than, similar to, or better than results for urban and rural residents who were not DE/LIS in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

Within urban and rural areas, the relative difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

# Clinical Care Measures Included in This Report<sup>5</sup>

## *Prevention and Screening*

- Adult Body Mass Index (BMI) Assessment
- Breast Cancer Screening
- Colorectal Cancer Screening

## *Respiratory Conditions*

- Testing to Confirm COPD
- Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid
- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

## *Cardiovascular Conditions*

- Controlling High Blood Pressure
- Continuous Beta-Blocker Treatment After a Heart Attack
- Statin Use in Patients with Cardiovascular Disease
- Medication Adherence for Cardiovascular Disease—Statins

## *Diabetes*

- Diabetes Care—Blood Sugar Testing
- Diabetes Care—Eye Exam
- Diabetes Care—Kidney Disease Monitoring
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Statin Use in Patients with Diabetes
- Medication Adherence for Diabetes—Statins

## *Musculoskeletal Conditions*

- Rheumatoid Arthritis Management
- Osteoporosis Management in Women Who Had a Fracture

## *Behavioral Health*

- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-Up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)
- Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)
- Initiation of Alcohol or Other Drug Treatment
- Engagement of Alcohol or Other Drug Treatment

## *Medication Management and Care Coordination*

- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Transitions of Care—Patient Engagement After Inpatient Discharge
- Follow-Up After ED Visit for People with High-Risk Multiple Chronic Conditions

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<sup>5</sup> This report considers all HEDIS measures that meet the measurement criteria and is not limited to the CMS Part C and D Star Ratings program.

*Overuse/Appropriate Use*

- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids at High Dosage
- Avoiding Use of Opioids from Multiple Prescribers
- Avoiding Use of Opioids from Multiple Pharmacies

*Access/Availability of Care*

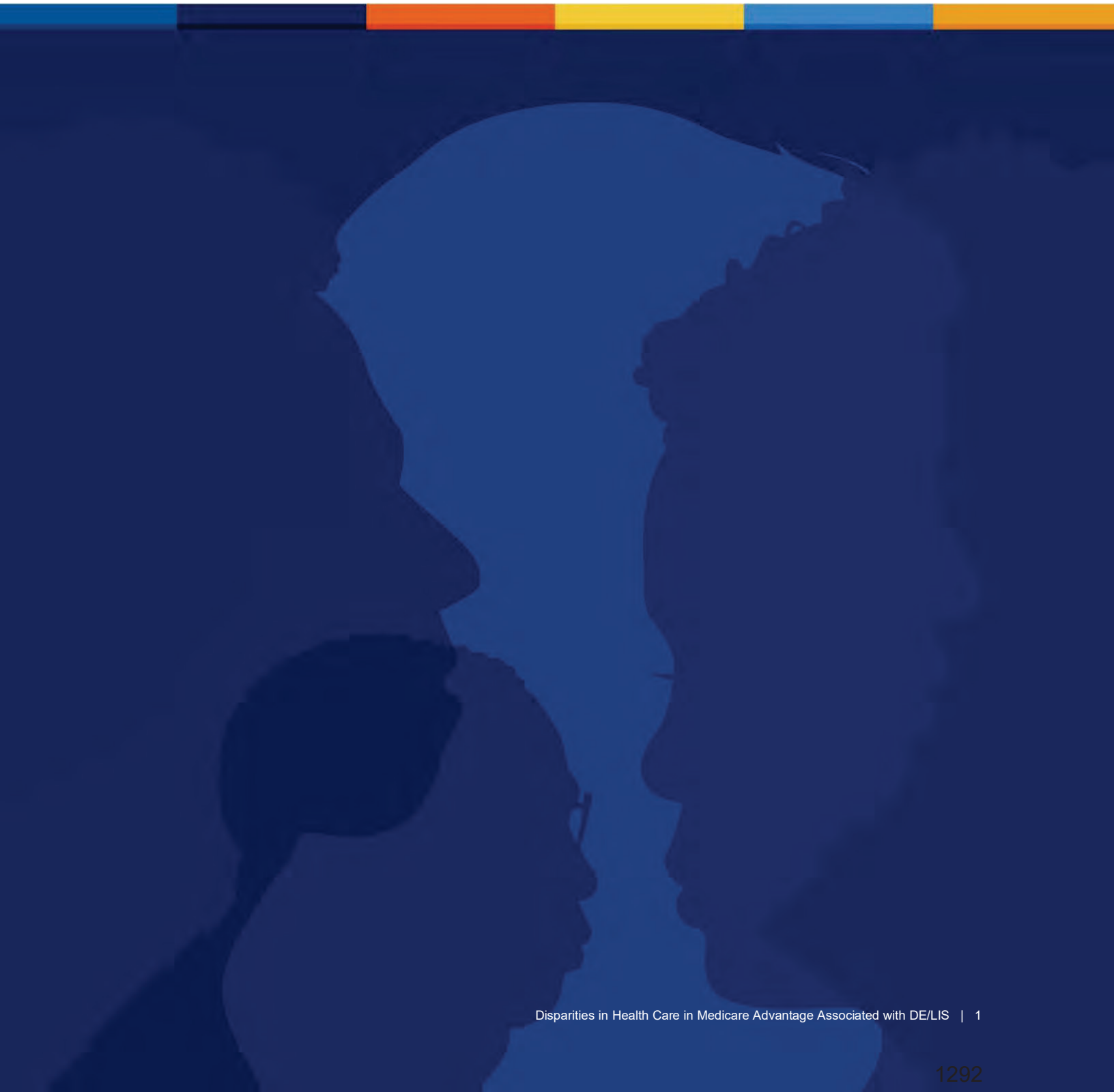
- Older Adults' Access to Preventive/Ambulatory Services



## Abbreviations Used in This Report

AMI	acute myocardial infarction
AOD	alcohol or other drug
API	Asian or Pacific Islander
ASCVD	atherosclerotic cardiovascular disease
BMI	body mass index
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CBSA	core-based statistical area
CMS	Centers for Medicare & Medicaid Services
COPD	chronic obstructive pulmonary disease
DE	dual-eligible
DE/LIS	dual-eligible or eligible for a Low-Income Subsidy
DMARD	disease-modifying anti-rheumatic drug
ED	emergency department
FFS	fee-for-service
HEDIS	Healthcare Effectiveness Data and Information Set
LIS	Low-Income Subsidy
MA	Medicare Advantage
non-DE/LIS	neither dual-eligible nor eligible for a Low-Income Subsidy
NSAID	nonsteroidal anti-inflammatory drug
QMB	Qualified Medicare Beneficiaries

# Overview and Methods



## Overview

This report presents summary information on the performance of Medicare Advantage (MA) plans on specific measures of quality of health care reported in 2019 (hereafter, “Reporting Year 2019”), which corresponds to care received in 2018 (also referred to as “Measurement Year 2018”).<sup>1</sup> The report focuses on 39 measures of clinical care, which describe the extent to which patients receive appropriate screening and treatment for specific health conditions.

The Institute of Medicine (now the National Academy of Medicine) has identified the equitable delivery of care as a hallmark of quality (Institute of Medicine, 2001). Assessing equitability in the delivery of care requires making comparisons of quality by personal characteristics of patients, such as socioeconomic status, race, and ethnicity. Since 2015, the CMS Office of Minority Health (OMH) has issued reports highlighting racial and ethnic differences in the quality of health care received by Medicare beneficiaries nationwide. In 2017, OMH began issuing reports comparing the quality of health care for male and female beneficiaries nationwide and looking at racial and ethnic differences separately among male and female beneficiaries. In 2018, OMH initiated a series of annual reports comparing the quality of health care for Medicare beneficiaries residing in rural versus urban areas nationwide; these reports have also looked at how racial and ethnic differences vary between rural and urban areas and how rural and urban differences vary across racial and ethnic groups.

This report focuses on comparing quality of care for dual-eligible (DE) beneficiaries (i.e., beneficiaries who qualify for both Medicare and Medicaid benefits)<sup>2</sup> and Medicare beneficiaries who are eligible for a Low-Income Subsidy (LIS)<sup>3</sup> with quality of care for beneficiaries who are neither dual-eligible nor LIS-eligible. Although it also is an indicator of high medical need, dual eligibility often is used as a proxy for low socioeconomic position (National Academies of Sciences, Engineering, and Medicine, 2016) and is a known predictor of many health-related processes and outcomes (Office of the Assistant Secretary for Planning and Evaluation, 2016).

In this report, three sets of comparisons are presented. In the first set, DE/LIS beneficiaries are compared with non-DE/LIS beneficiaries overall (i.e., irrespective of other beneficiary characteristics). In the second set, quality of care for DE/LIS beneficiaries is compared with quality of care for non-DE/LIS beneficiaries separately within four different racial and ethnic groups: Asian or Pacific Islander (API), Black, Hispanic, and White beneficiaries.<sup>4</sup> In the third set, quality of care for DE/LIS beneficiaries is compared with quality of care for non-DE/LIS beneficiaries separately within urban and rural areas.<sup>5</sup> The

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<sup>1</sup> Two measures reported herein—Adult BMI Assessment and Breast Cancer Screening—pertain to care received in the past two years.

<sup>2</sup> In this report, all DE individuals (i.e., those who would be considered full benefit, partial benefit, and Qualified Medicare Beneficiaries [QMBs]) are included in this group.

<sup>3</sup> In 2021, Medicare beneficiaries may qualify for the LIS if they have up to \$19,320 in yearly income (\$26,130 for a married couple) and up to \$14,790 in resources (\$29,520 for a married couple).

<sup>4</sup> For reporting Healthcare Effectiveness Data and Information Set (HEDIS) data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from Centers for Medicare & Medicaid Services (CMS) administrative data, surname, and residential location. This methodology—which is called Medicare Bayesian Improved Surname Geocoding (MBISG)—is recommended for estimating racial and ethnic disparities for API, Black, Hispanic, and White beneficiaries (Haas et al., 2019). It is not currently recommended for estimating disparities for multiracial beneficiaries. The use of this methodology for American Indian and Alaska Native beneficiaries is under evaluation.

<sup>5</sup> Beneficiaries were classified as living in a rural or urban area according to the ZIP code of their mailing address and the corresponding U.S. Census Bureau core-based statistical area (CBSA). CBSAs consist of the county or counties associated with at least one core urban area plus adjacent counties with a high degree of social and economic integration with the core. Metropolitan statistical areas contain a core urban area with a population of

three sets of comparisons just described—which might be of interest to Medicare beneficiaries, MA organizations, Medicare Part D sponsors, health care researchers, and federal policymakers—are presented in a single report to provide a more-comprehensive understanding of the ways in which care differs by socioeconomic position, race and ethnicity, rurality, and the intersection of these characteristics. The focus of this report is on differences that exist at the national level. Interested readers can find information about health care quality for specific Medicare plans at Medicare.gov (Medicare.gov, undated).

### ***Data Sources***

Data on the 39 clinical care measures included in this report were gathered through medical records and insurance claims or encounter data for hospitalizations, medical office visits, and procedures. These data, which are collected each year from MA plans nationwide, are part of the HEDIS (detailed information about these data can be found on the National Committee for Quality Assurance’s HEDIS webpage [National Committee for Quality Assurance, undated]). In this report, clinical care measures are grouped into nine categories: prevention and screening, respiratory conditions, cardiovascular conditions, diabetes, musculoskeletal conditions, behavioral health, medication management and care coordination, overuse and appropriate use, and access and availability of care. The 2019 HEDIS data reported here pertain to care received from January to December 2018.

Table 1 shows the distribution of beneficiaries by DE/LIS status, race and ethnicity, and urban and rural status in the 2019 MA population, and, for comparison, in the Medicare fee-for-service (FFS) population. In 2019, 34 percent of all Medicare beneficiaries were enrolled in MA. In general, DE/LIS beneficiaries were more likely to be enrolled in MA than were non-DE/LIS beneficiaries, racial and ethnic minority beneficiaries were more likely to be enrolled in MA than were White beneficiaries, and urban residents were more likely to be enrolled in MA than were rural residents.

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50,000 or more. Micropolitan statistical areas contain a core urban area of at least 10,000 but less than 50,000 people. For the purposes of this report, any beneficiary residing within a metropolitan statistical area was classified as an urban resident, while any beneficiary living in a micropolitan statistical area or outside a CBSA was classified as a rural resident.

Table 1. Distribution of the 2019 MA Population Compared with the Medicare FFS Population

Beneficiary Characteristic	MA (%)	Medicare FFS (%)
DE/LIS status		
DE/LIS	21.0	15.5
Non-DE/LIS	79.0	84.5
Race or ethnicity		
American Indian or Alaska Native*	0.4	0.7
Asian or Pacific Islander	4.0	3.6
Black	11.0	8.6
Hispanic	12.8	6.1
White	69.5	79.1
Multiracial*	2.3	2.0
Place of residence		
Urban	84.4	78.5
Rural	15.6	21.5

NOTE: DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

\* The American Indian and Alaska Native and multiracial groups are not included in this report because they are less reliably measured than the other groups listed in this table.

### Reportability of Information

Sample size criteria were used to determine whether a score on a measure was reportable for a particular group. Scores based on 400 or more observations across all contracts were considered sufficiently precise for reporting. Scores based on more than 99 but fewer than 400 observations were considered low in precision and were flagged as such. In this report, flagged scores—which should be regarded as tentative information—are shown unbolded with a superscript symbol appended; the symbol links to a note at the bottom of the chart that cautions about the precision of the score.<sup>6</sup>

### Disparities in Health Care in Medicare Advantage by DE/LIS Status

Section I of the report begins with a stacked bar chart showing the number of clinical care measures (out of 39) for which DE/LIS beneficiaries had results that were worse than, similar to, or better than results for non-DE/LIS beneficiaries.<sup>7</sup> Following the stacked bar charts are separate, unstacked bar charts for each clinical care measure. These unstacked bar charts show the percentage of DE/LIS and non-DE/LIS MA beneficiaries whose care met the standard called for by the specific measure (e.g., receiving a clinically indicated test or treatment).

<sup>6</sup> If a score were based on 99 or fewer observations, it would have been suppressed (i.e., not reported); however, no score fit that description for this report.

<sup>7</sup> Here, *similar* is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both, as described in the appendix. *Worse* and *better* are used to characterize differences that are statistically significant and reach or exceed a magnitude threshold.

***DE/LIS Disparities by Race and Ethnicity in Health Care in Medicare Advantage***

Section II of the report shows how differences in care for DE/LIS and non-DE/LIS beneficiaries vary from one racial or ethnic group to another. Section II begins with a set of stacked bar charts that show, separately for API, Black, Hispanic, and White MA beneficiaries, the number of clinical care measures for which results for DE/LIS beneficiaries were worse than, similar to, or better than results for non-DE/LIS beneficiaries. Following the stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for API, Black, Hispanic, and White MA beneficiaries, the percentage of DE/LIS and non-DE/LIS beneficiaries whose care met the standard called for by the measure.

***DE/LIS Disparities in Health Care in Medicare Advantage Within Urban and Rural Areas***

Section III of the report shows how differences in care for DE/LIS and non-DE/LIS beneficiaries vary between urban and rural areas. Section III begins with a pair of stacked bar charts that show, separately for residents of urban and rural areas, the number of clinical care measures for which results for DE/LIS beneficiaries were worse than, similar to, or better than results for non-DE/LIS beneficiaries. Following the stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for residents of urban and rural areas, the percentage of DE/LIS and non-DE/LIS beneficiaries whose care met the standard called for by the measure.

For detailed information on data sources and analytic methods, see the appendix.

SECTION I:

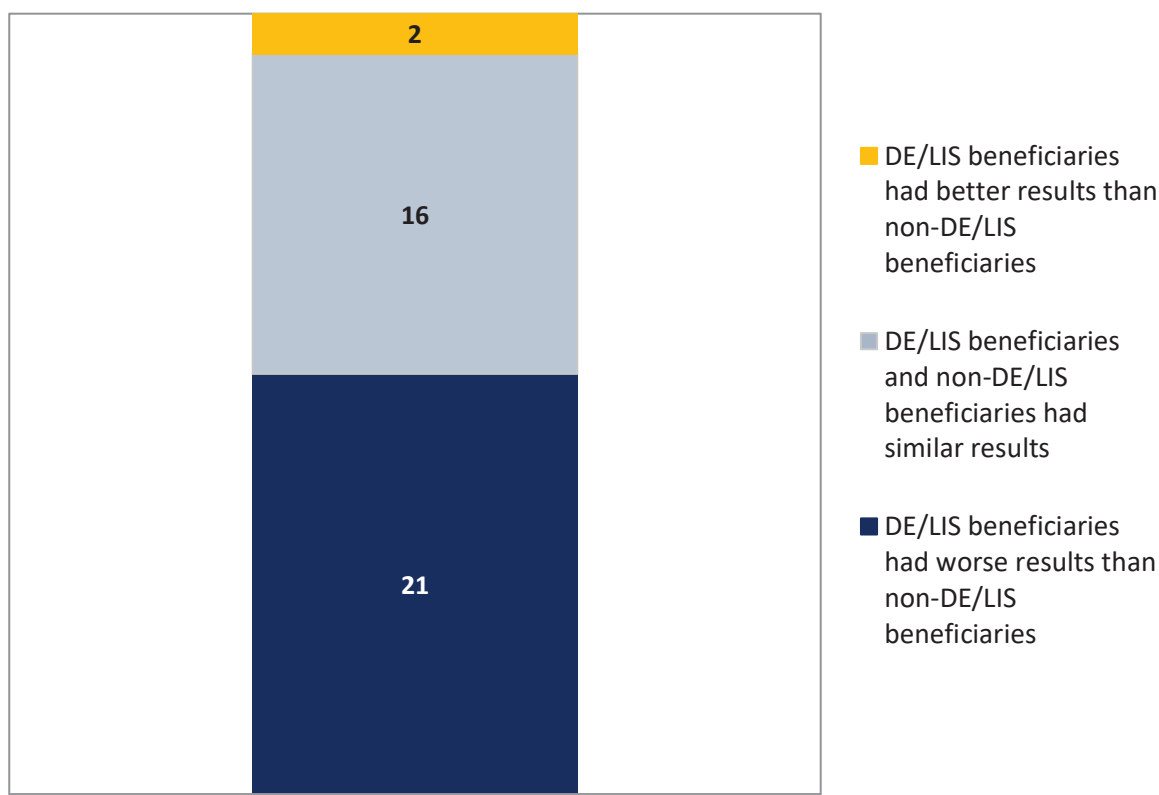
# DE/LIS Disparities in Health Care in Medicare Advantage





## Summary of Disparities in Clinical Care by DE/LIS Status

Number of clinical care measures for which DE/LIS beneficiaries had results that were worse than, similar to, or better than results for non-DE/LIS beneficiaries in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

The relative difference between DE/LIS and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**DE/LIS beneficiaries had worse results than non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Colorectal Cancer Screening
- Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)
- Medication Adherence for Cardiovascular Disease—Statins
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Medication Adherence for Diabetes—Statins
- Osteoporosis Management in Women Who Had a Fracture
- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-Up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)
- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Follow-Up After ED Visit for People with High-Risk Multiple Chronic Conditions
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers

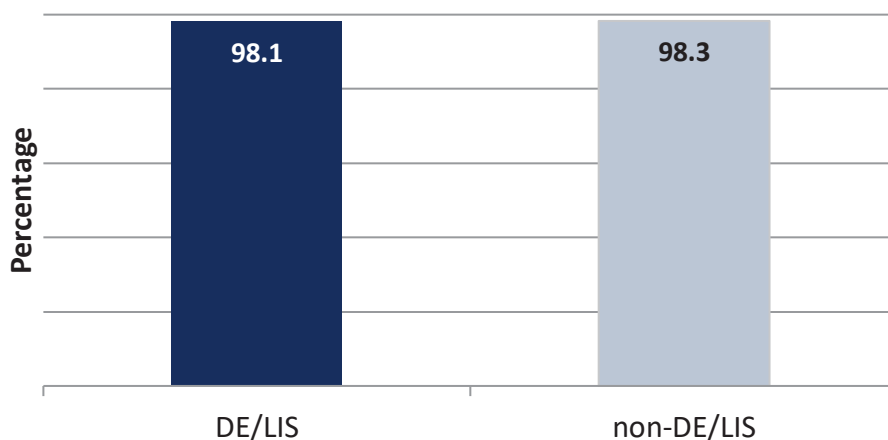
**DE/LIS beneficiaries had better results than non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Initiation of Alcohol or Other Drug Treatment

## Prevention and Screening

### Adult Body Mass Index (BMI) Assessment

Percentage of MA beneficiaries aged 18 to 74 years who had an outpatient visit whose BMI was documented in the past two years, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

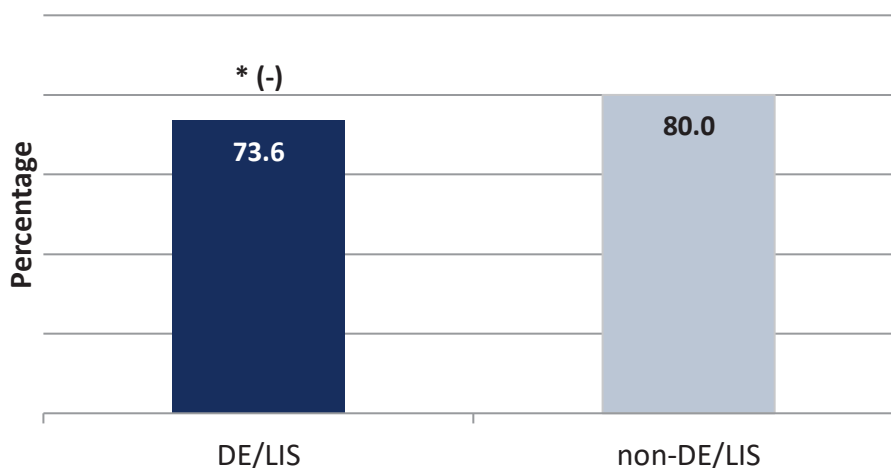
**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries were about as likely as non-DE/LIS beneficiaries to have had their BMIs documented.

## Breast Cancer Screening

Percentage of female MA beneficiaries aged 50 to 74 years who had appropriate screening for breast cancer in the past two years, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Female DE/LIS beneficiaries were less likely than female non-DE/LIS beneficiaries to have been appropriately screened for breast cancer. The difference between female DE/LIS beneficiaries and female non-DE/LIS beneficiaries was greater than 3 percentage points.

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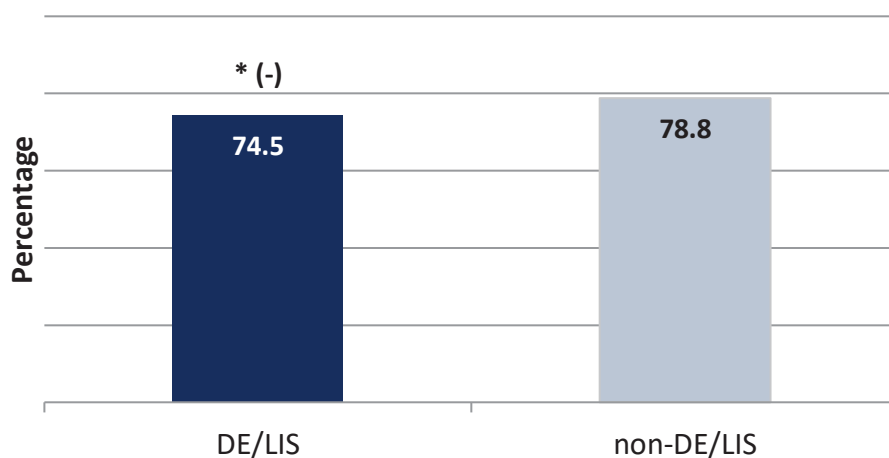
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Colorectal Cancer Screening

Percentage of MA beneficiaries aged 50 to 75 years who had appropriate screening for colorectal cancer, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries were less likely than non-DE/LIS beneficiaries to have been appropriately screened for colorectal cancer. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

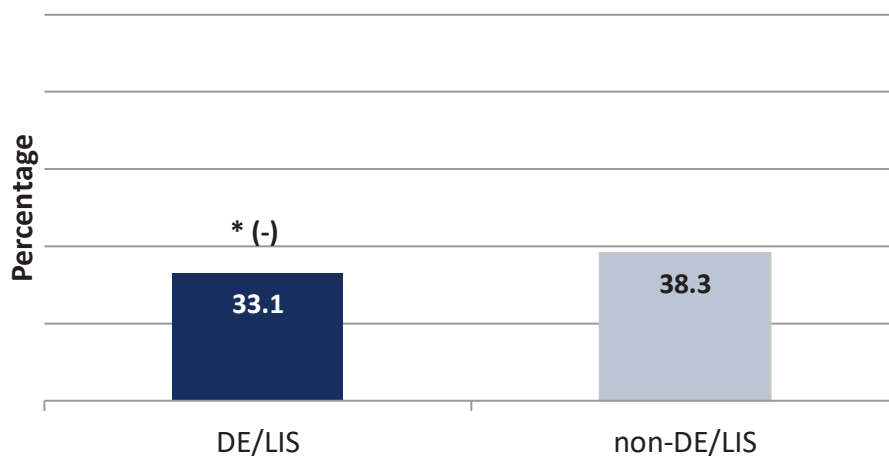
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA beneficiaries aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries with a new diagnosis of COPD or newly active COPD were less likely than non-DE/LIS beneficiaries with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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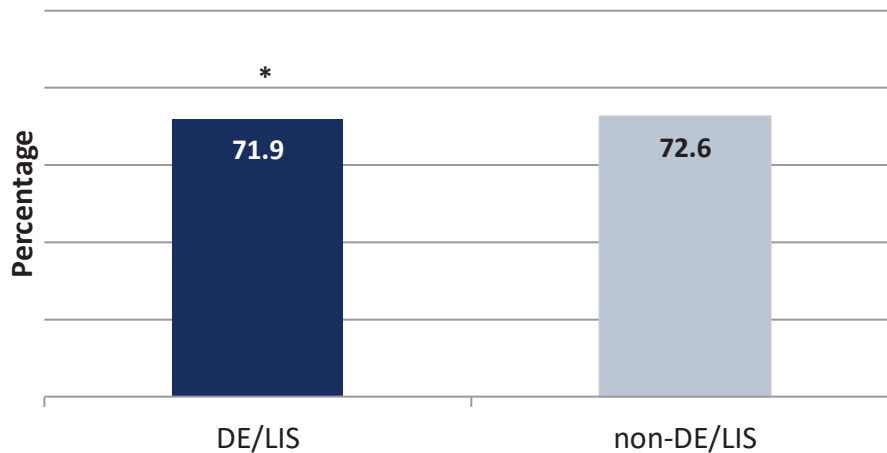
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who experienced a COPD exacerbation were less likely than non-DE/LIS beneficiaries who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

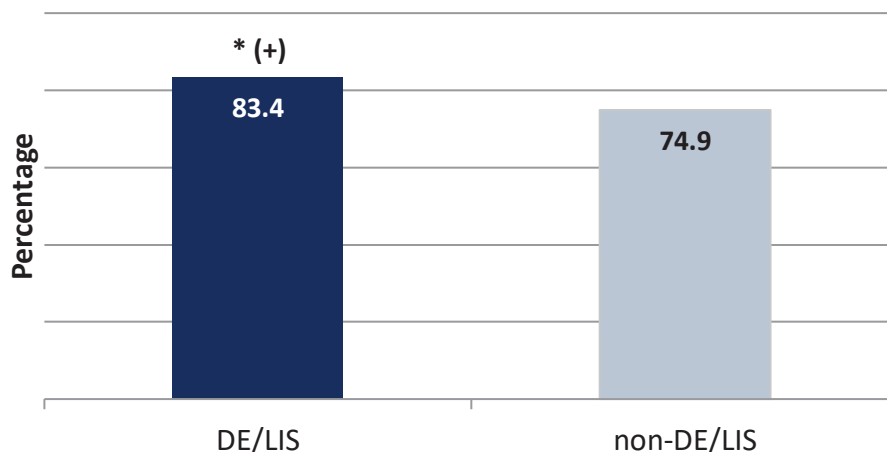
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who experienced a COPD exacerbation were more likely than non-DE/LIS beneficiaries who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

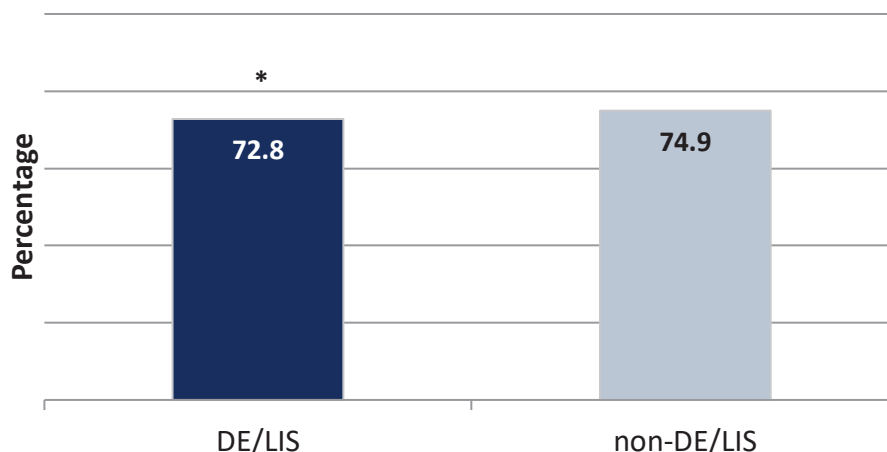
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA beneficiaries aged 18 to 85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries who had a diagnosis of hypertension were less likely than non-DE/LIS beneficiaries who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

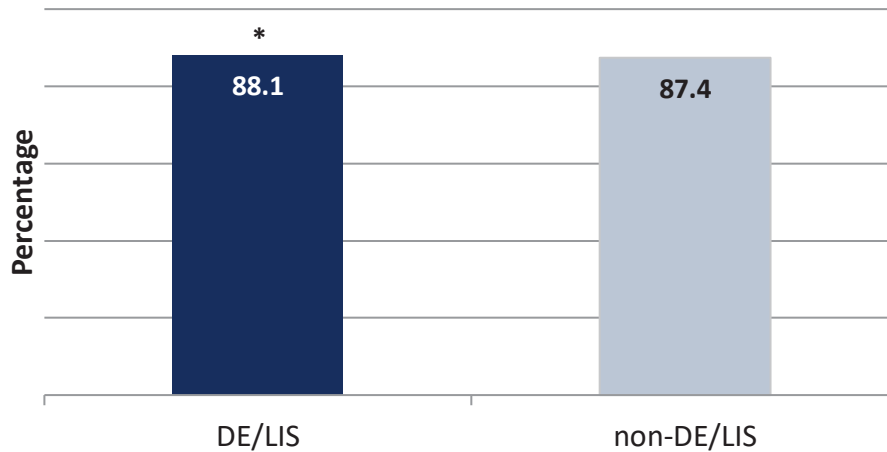
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Less than 140/90 for those 18 to 59 years of age and for those 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for those 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA beneficiaries aged 18 years and older who were hospitalized and discharged with a diagnosis of acute myocardial infarction (AMI) who received continuous beta-blocker treatment for six months after discharge, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who were hospitalized for a heart attack were more likely than non-DE/LIS beneficiaries who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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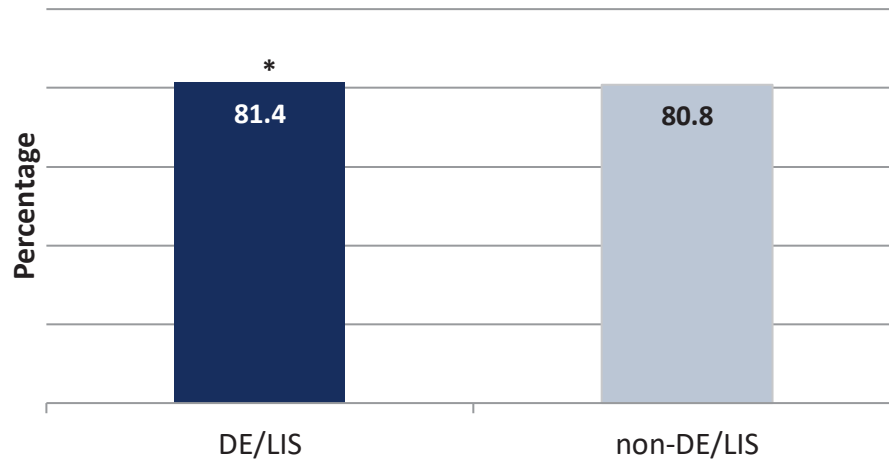
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Cardiovascular Disease

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with ASCVD were more likely than non-DE/LIS beneficiaries with ASCVD to have received statin therapy. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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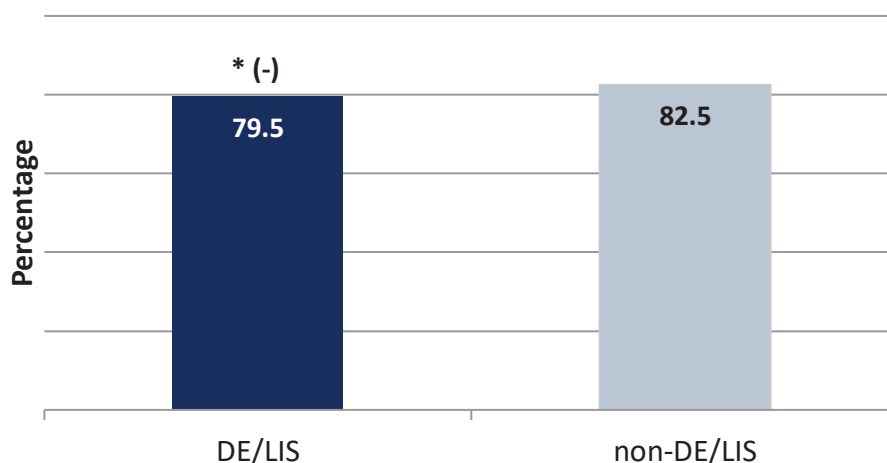
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with ASCVD were less likely than non-DE/LIS beneficiaries with ASCVD to have had proper statin medication adherence. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points (before rounding).

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

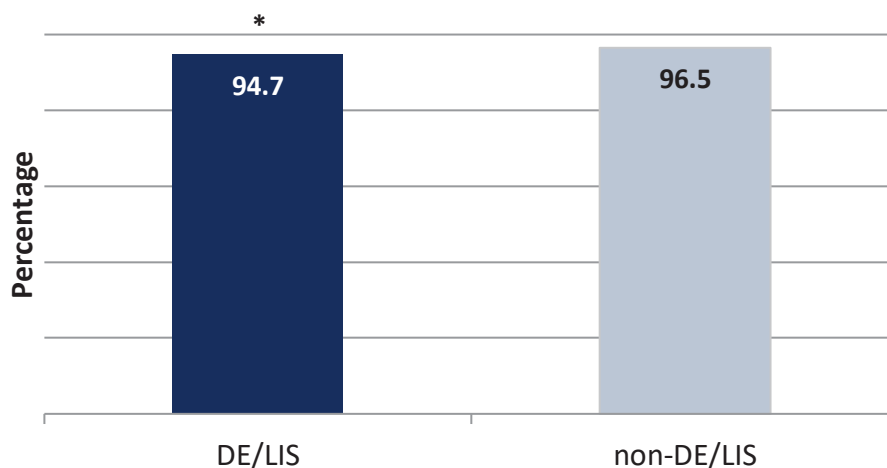
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had their blood sugar tested at least once in the past year. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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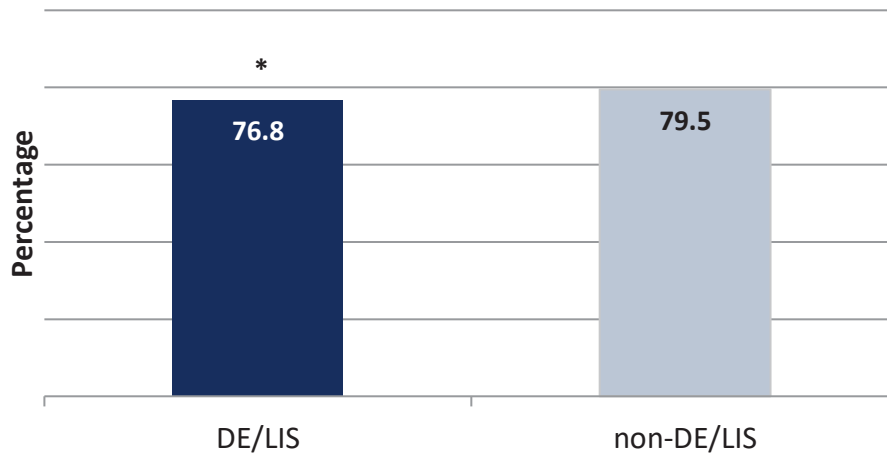
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Eye Exam

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had an eye exam in the past year. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

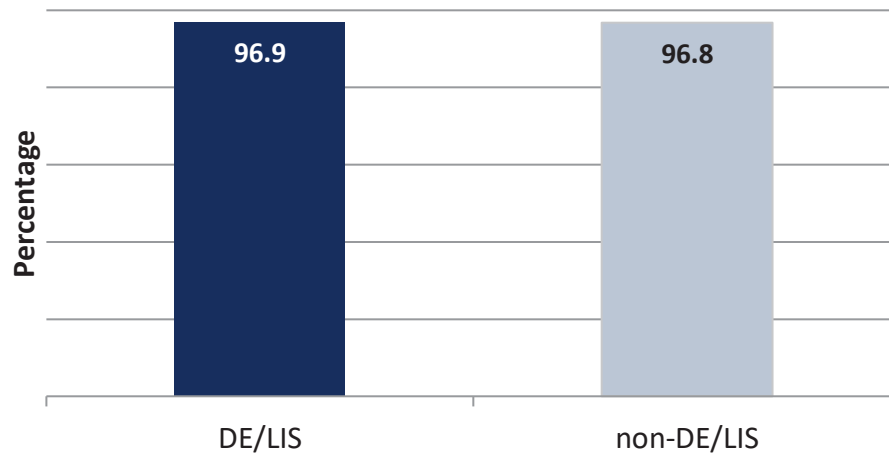
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



### Diabetes Care—Kidney Disease Monitoring

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

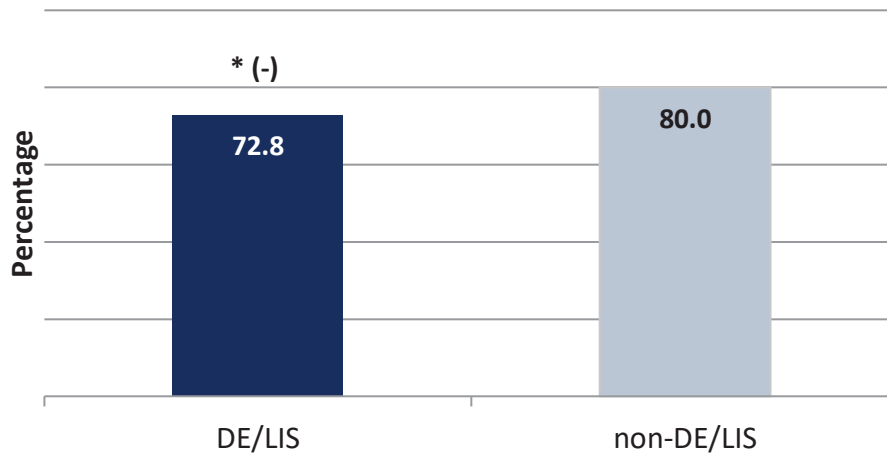
**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries with diabetes were about as likely as non-DE/LIS beneficiaries with diabetes to have had medical attention for nephropathy in the past year.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had their blood pressure under control. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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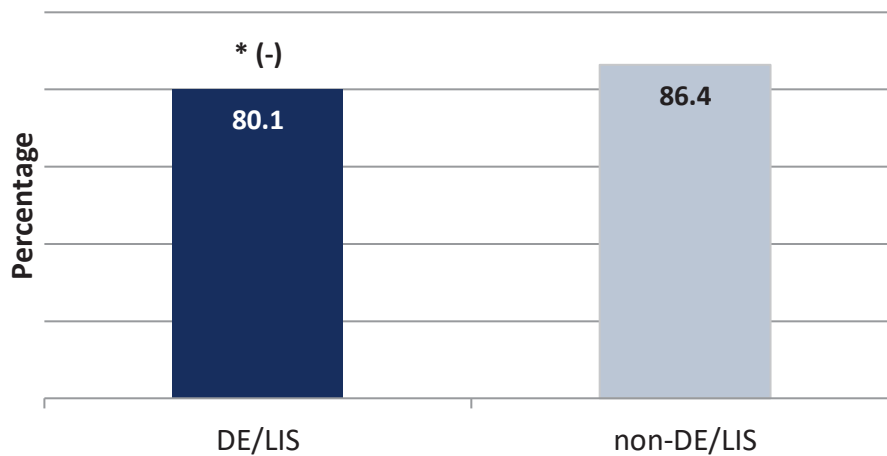
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had their blood sugar levels under control. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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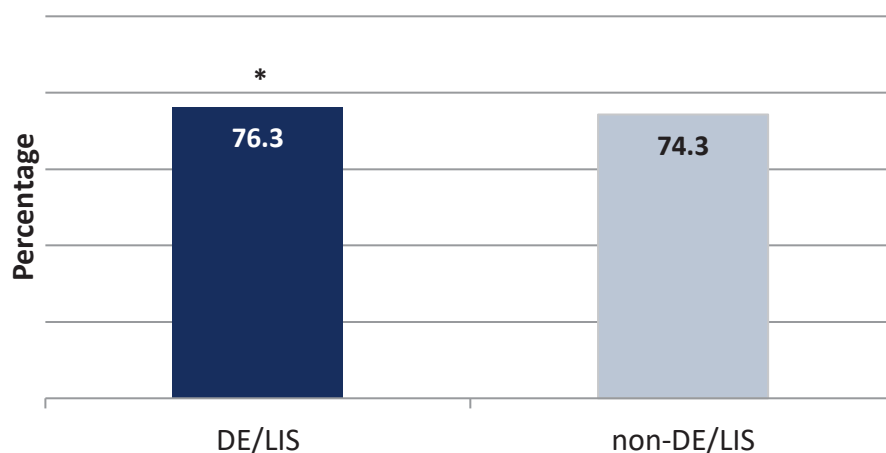
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Diabetes

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with diabetes were more likely than non-DE/LIS beneficiaries with diabetes to have received statin therapy. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

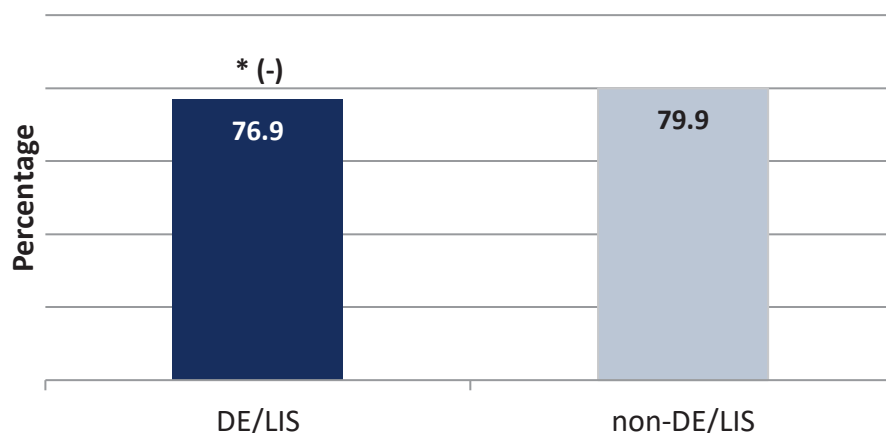
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Medication Adherence for Diabetes—Statins

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had proper statin medication adherence. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

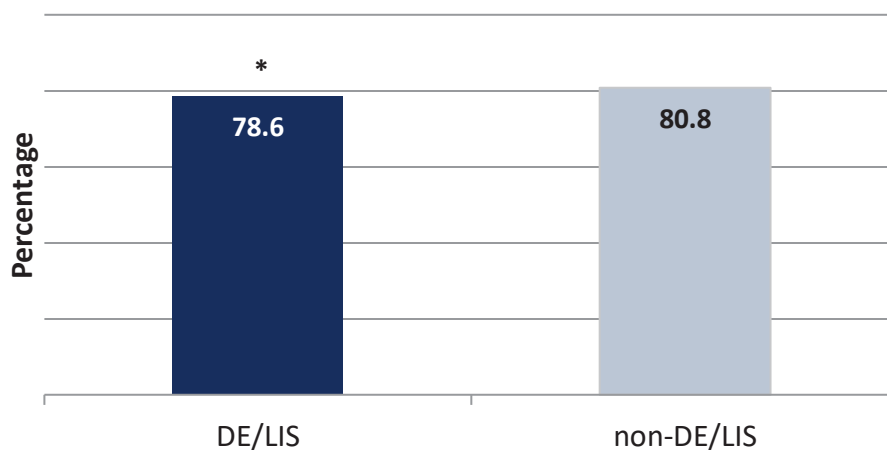
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA beneficiaries aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying anti-rheumatic drug (DMARD), by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries who were diagnosed with rheumatoid arthritis were less likely than non-DE/LIS beneficiaries who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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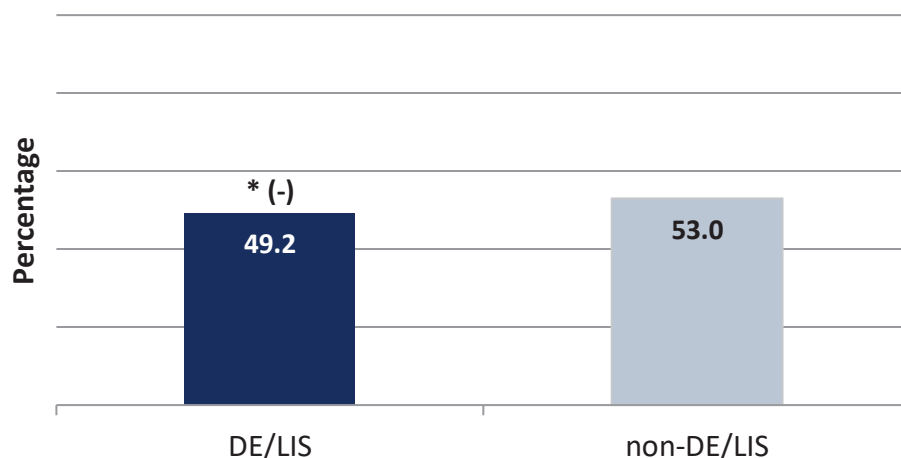
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Osteoporosis Management in Women Who Had a Fracture

Percentage of female MA beneficiaries aged 65 to 85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Female DE/LIS beneficiaries who suffered a fracture were less likely than female non-DE/LIS beneficiaries who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. The difference between female DE/LIS beneficiaries and female non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

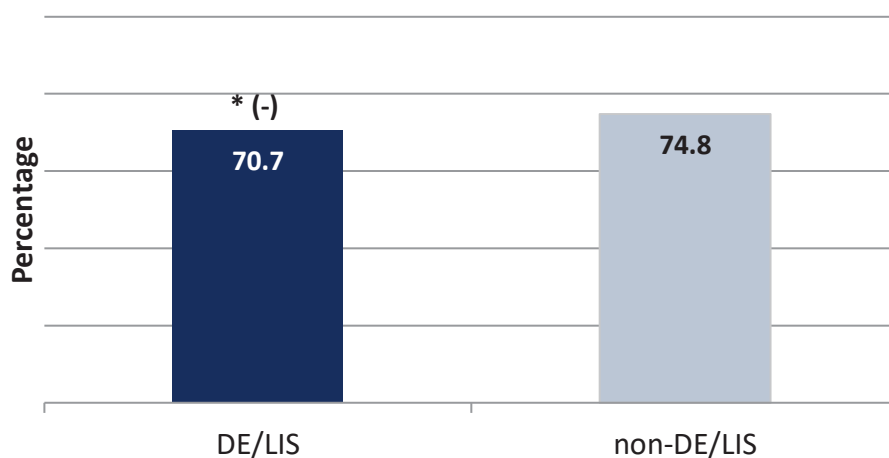
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries diagnosed with a new episode of major depression were less likely than non-DE/LIS beneficiaries diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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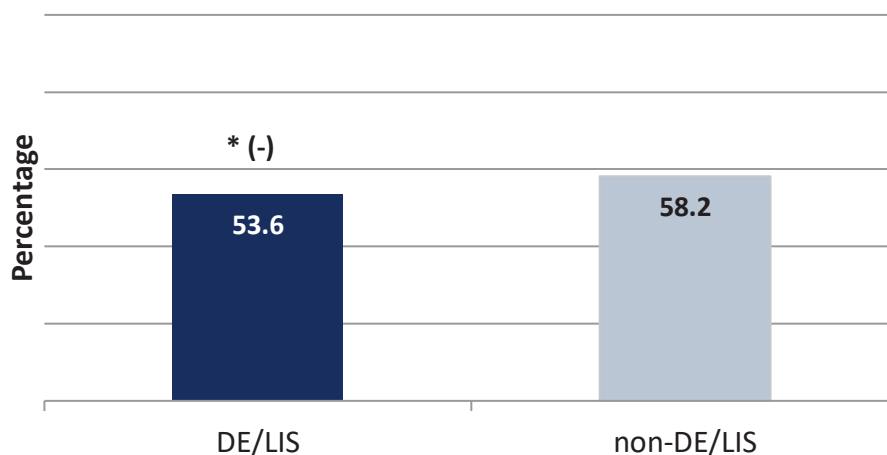
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on antidepressant medication for at least 180 days, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries diagnosed with a new episode of major depression were less likely than non-DE/LIS beneficiaries diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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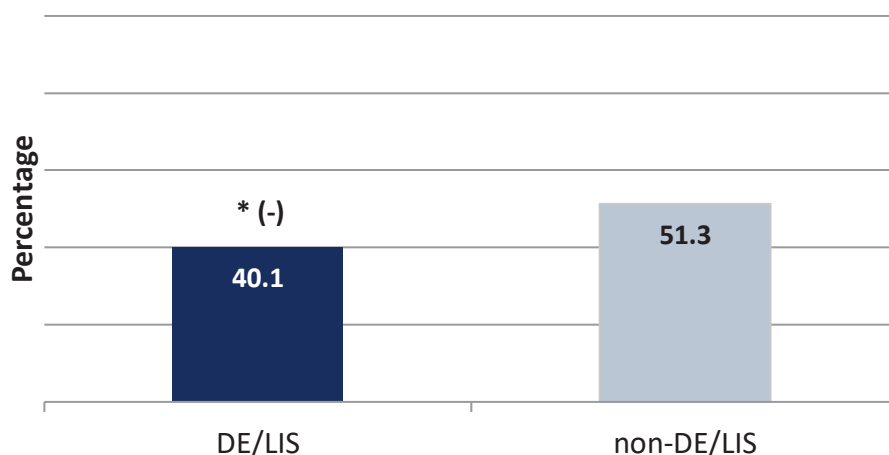
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who were hospitalized for a mental health disorder were less likely than non-DE/LIS beneficiaries who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

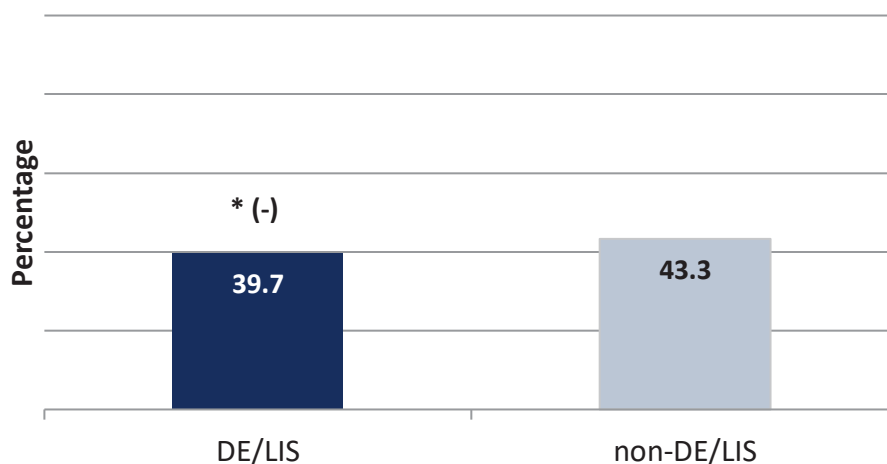
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for the treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who had an ED visit for a mental health disorder were less likely than non-DE/LIS beneficiaries who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

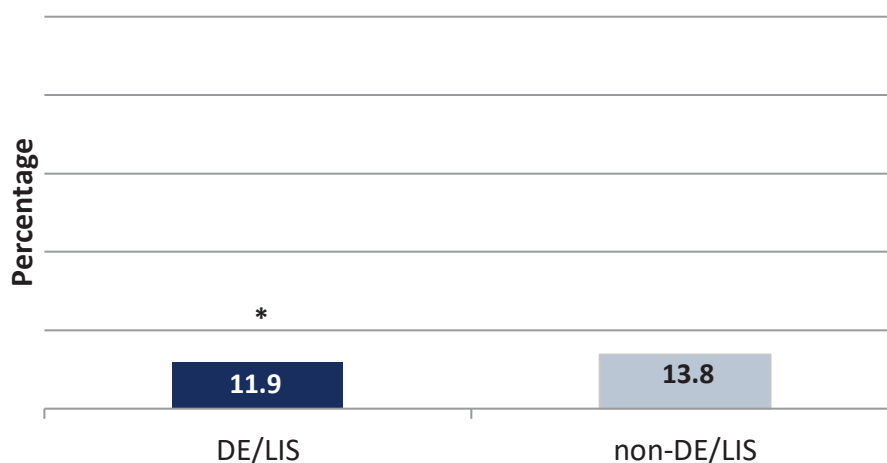
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for alcohol and other drug (AOD) abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who had an ED visit for AOD abuse or dependence were less likely than non-DE/LIS beneficiaries who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of being discharged. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

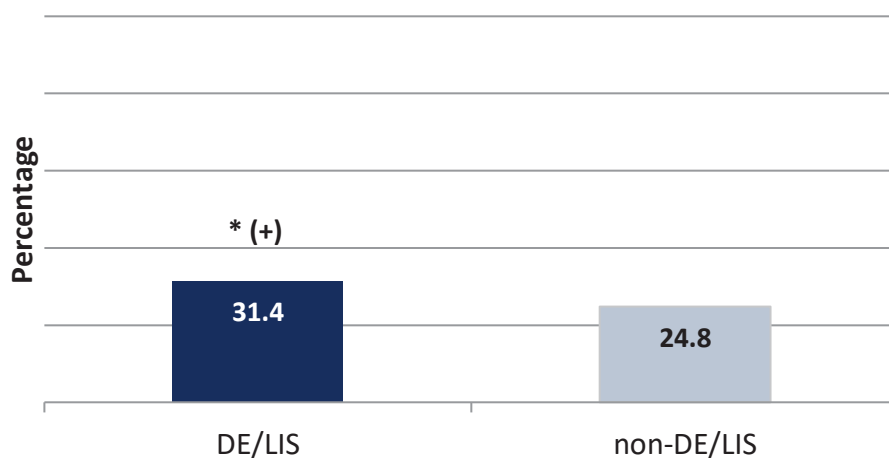
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with a new episode of AOD dependence were more likely than non-DE/LIS beneficiaries with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

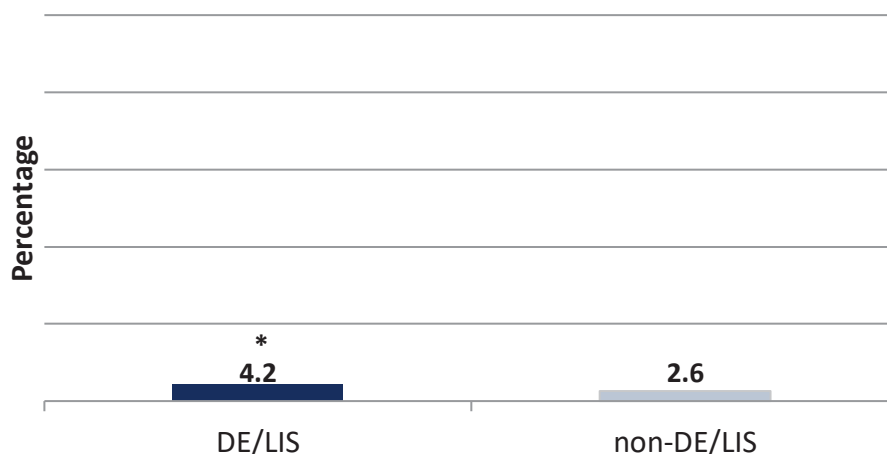
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Documented performance for this measure was very low, indicating a need for improvement in this aspect of care and its documentation. DE/LIS beneficiaries with a new episode of AOD dependence who initiated treatment were more likely than non-DE/LIS beneficiaries with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
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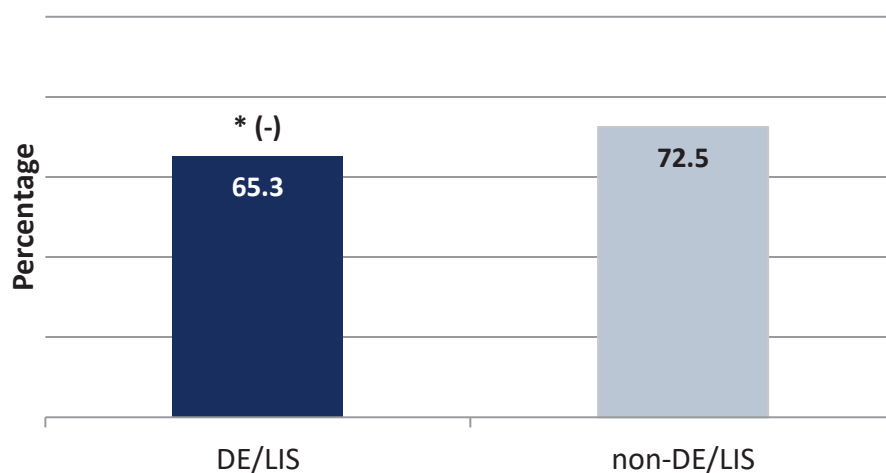
<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.



## Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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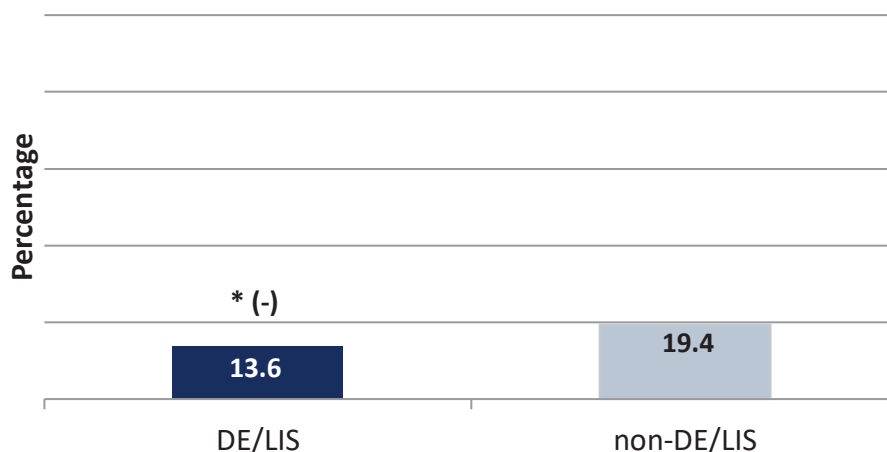
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- The primary or ongoing care providers of DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of non-DE/LIS beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. The difference between these groups was greater than 3 percentage points.

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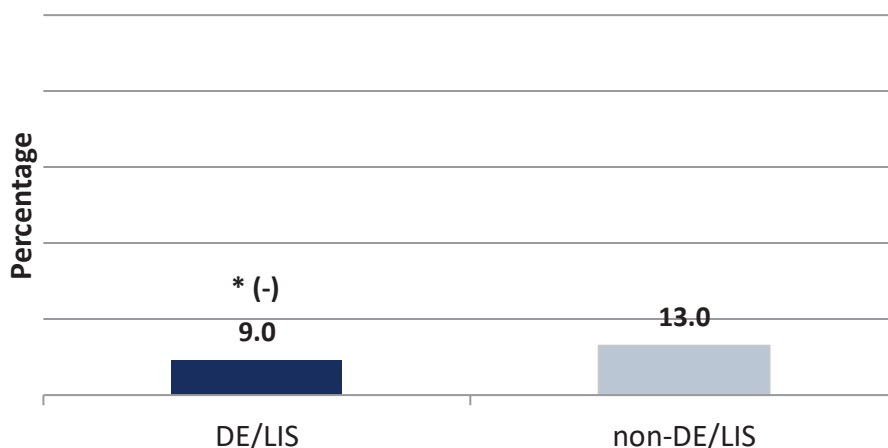
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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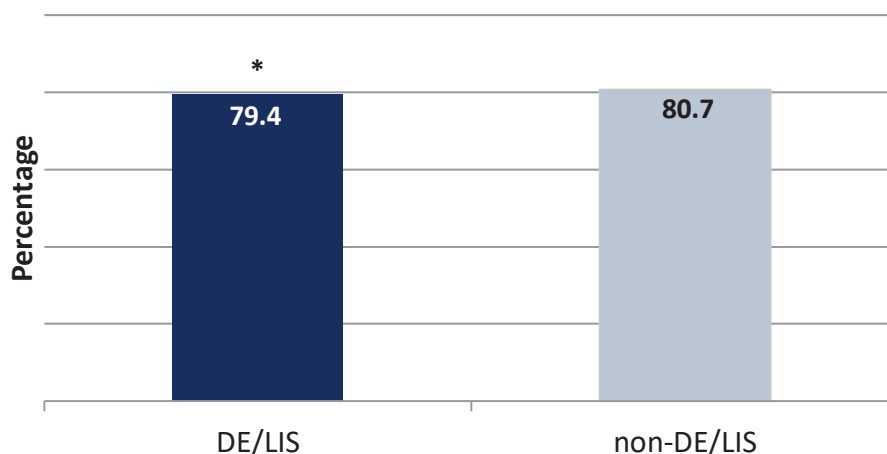
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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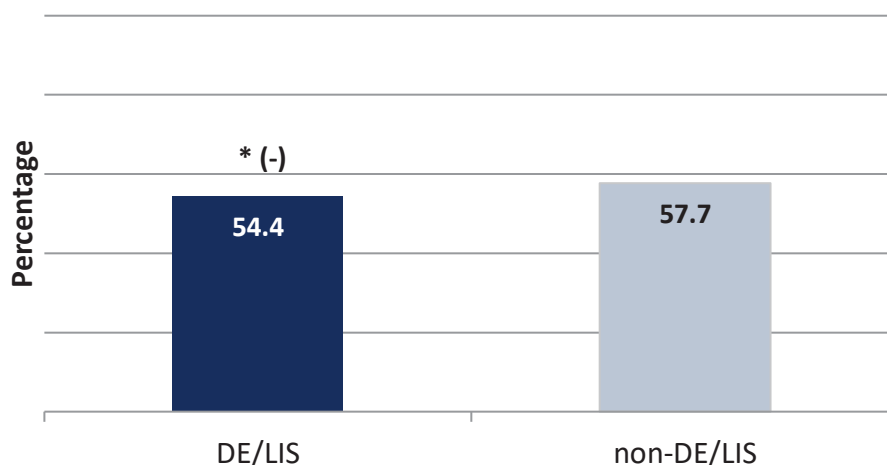
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA beneficiaries aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- DE/LIS beneficiaries with multiple high-risk chronic conditions were less likely than non-DE/LIS beneficiaries with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

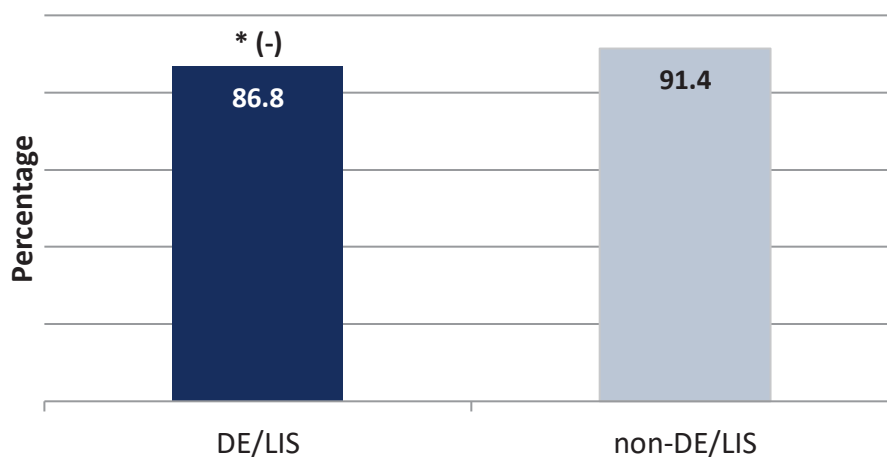
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, AMI, atrial fibrillation, and stroke and transient ischemic attack.

## Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA beneficiaries aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup>  
by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with chronic renal failure than for elderly non-DE/LIS beneficiaries with chronic renal failure. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

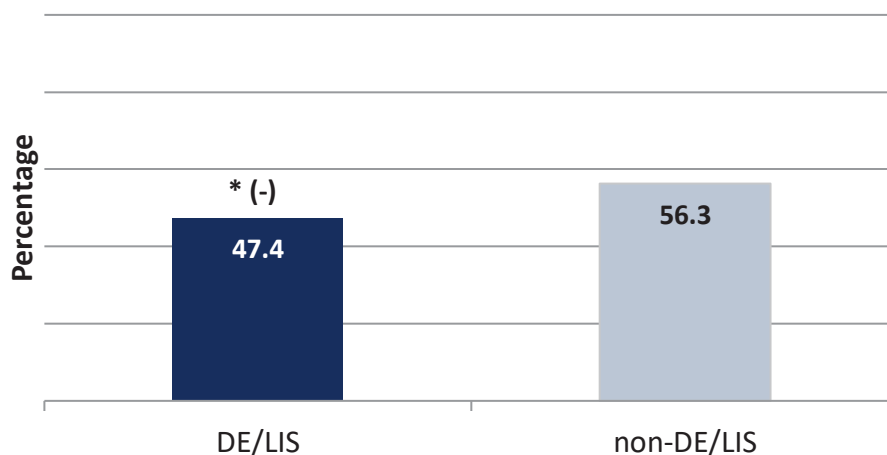
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes cyclooxygenase-2 selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA beneficiaries aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with dementia than for elderly non-DE/LIS beneficiaries with dementia. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

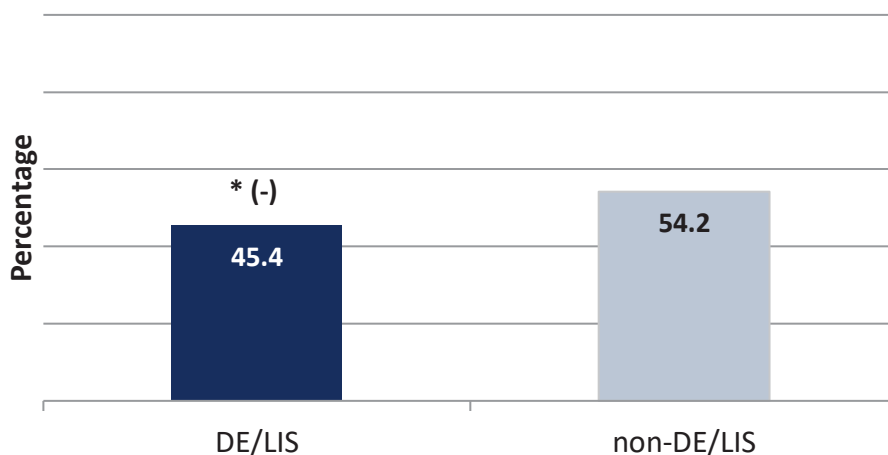
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.



## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA beneficiaries aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with a history of falls than for elderly non-DE/LIS beneficiaries with a history of falls. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

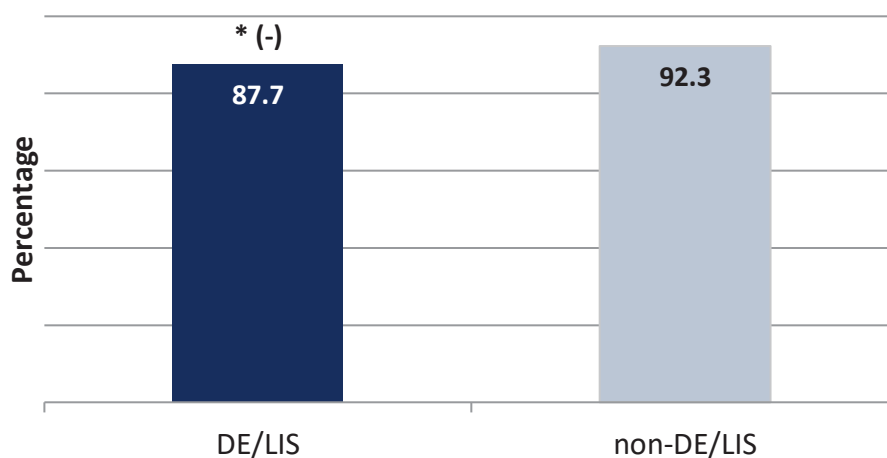
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA beneficiaries aged 65 years and older who were not prescribed a high-risk medication, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of high-risk medication was avoided less often for elderly DE/LIS beneficiaries than for elderly non-DE/LIS beneficiaries. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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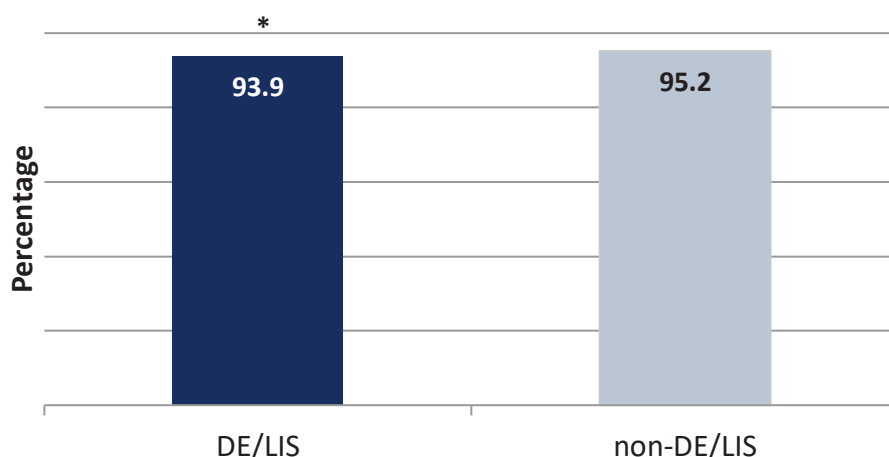
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids at High Dosage

Percentage of MA beneficiaries aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of opioids at a high dosage for more than 14 days was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

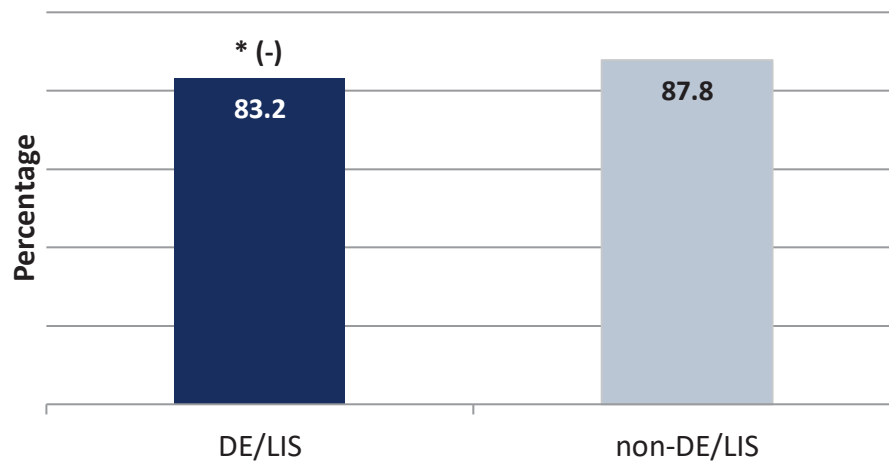
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Average morphine equivalent dose > 120 mg.

## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of opioids from multiple prescribers was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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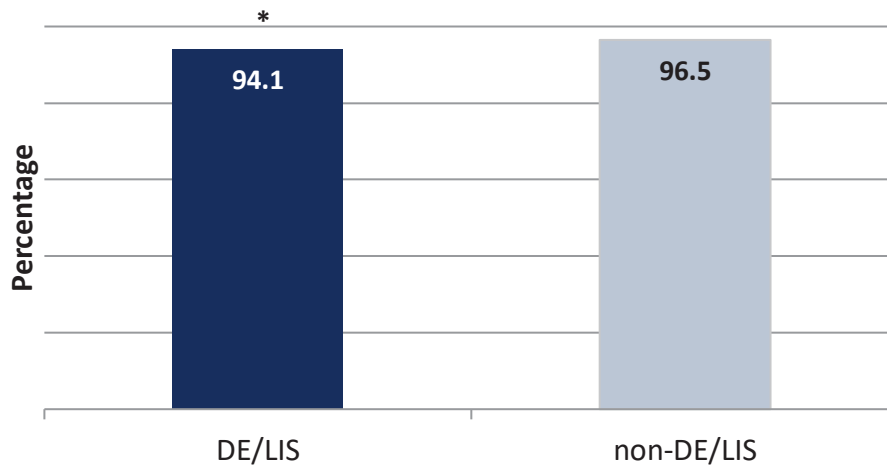
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- Use of opioids from multiple pharmacies was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

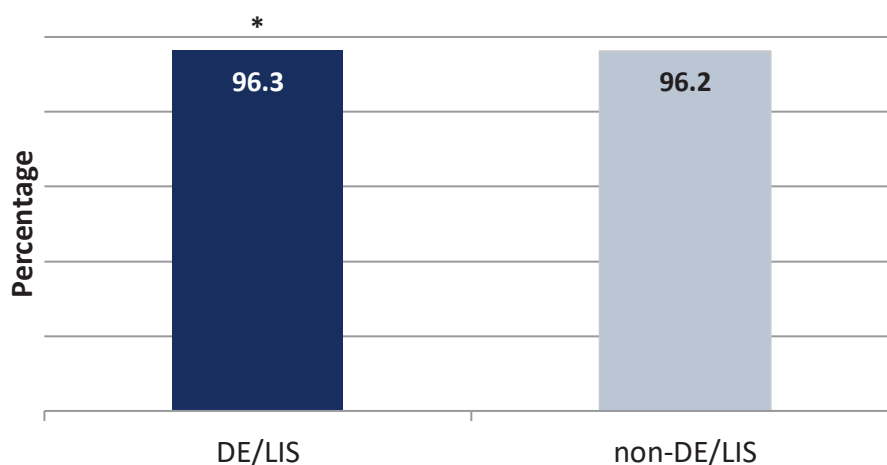
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA beneficiaries aged 65 years and older who had an ambulatory or preventive care visit in the past year, by DE/LIS status, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- DE/LIS beneficiaries were more likely than non-DE/LIS beneficiaries to have had an ambulatory or preventive care visit. The difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

SECTION II:

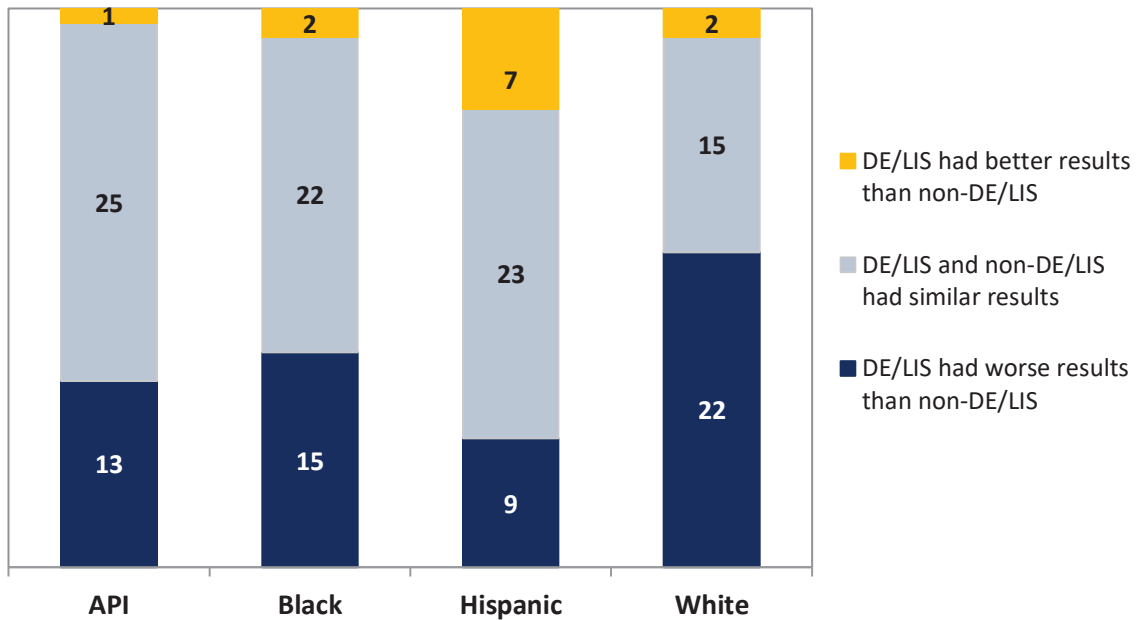
# DE/LIS Disparities by Race and Ethnicity in Health Care in Medicare Advantage





## Summary of Disparities in Clinical Care by DE/LIS Status Within Racial and Ethnic Groups

Number of clinical care measures for which DE/LIS beneficiaries of selected racial and ethnic groups had results that were worse than, similar to, or better than results for non-DE/LIS beneficiaries in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races. Three of the values reported in this chart had low precision; one is among the 13 instances in which API DE/LIS beneficiaries had worse results than API non-DE/LIS beneficiaries, while the other two are among the 25 instances in which API DE/LIS and API non-DE/LIS beneficiaries had similar results.

Within each racial or ethnic group, the relative difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**API DE/LIS beneficiaries had worse results than API non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Testing to Confirm COPD
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Osteoporosis Management in Women Who Had a Fracture
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Receipt of Discharge Information
- Transitions of Care—Patient Engagement After Inpatient Discharge
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medication in the Elderly

**API DE/LIS beneficiaries had better results than API non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

**Black DE/LIS beneficiaries had worse results than Black non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Colorectal Cancer Screening
- Testing to Confirm COPD
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Osteoporosis Management in Women Who Had a Fracture
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medication in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers
- Avoiding Use of Opioids from Multiple Pharmacies

**Black DE/LIS beneficiaries had better results than Black non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Initiation of Alcohol or Other Drug Treatment

**Hispanic DE/LIS beneficiaries had worse results than Hispanic non-DE/LIS beneficiaries**

- Colorectal Cancer Screening
- Controlling High Blood Pressure
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Osteoporosis Management in Women Who Had a Fracture
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers

**Hispanic DE/LIS beneficiaries had better results than Hispanic non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid
- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Statin Use in Patients with Diabetes
- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Initiation of Alcohol or Other Drug Treatment
- Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

**White DE/LIS beneficiaries had worse results than White non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Colorectal Cancer Screening
- Testing to Confirm COPD
- Medication Adherence for Cardiovascular Disease—Statins
- Diabetes Care—Eye Exam
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Medication Adherence for Diabetes—Statins
- Rheumatoid Arthritis Management
- Osteoporosis Management in Women Who Had a Fracture
- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers

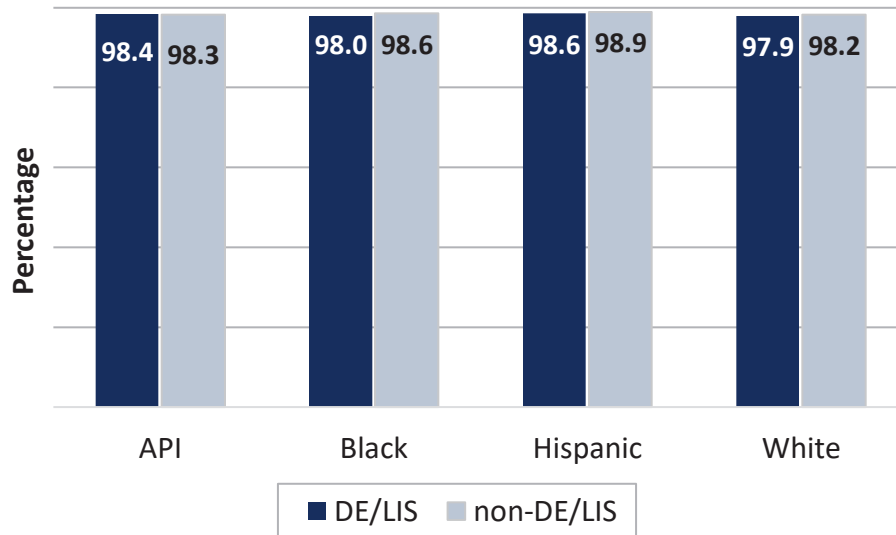
**White DE/LIS beneficiaries had better results than White non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Initiation of Alcohol or Other Drug Treatment

## Prevention and Screening

### Adult Body Mass Index (BMI) Assessment

**Percentage of Medicare beneficiaries aged 18 to 74 years who had an outpatient visit and whose BMIs were documented in the past two years, by DE/LIS status within race and ethnicity, Reporting Year 2019**



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

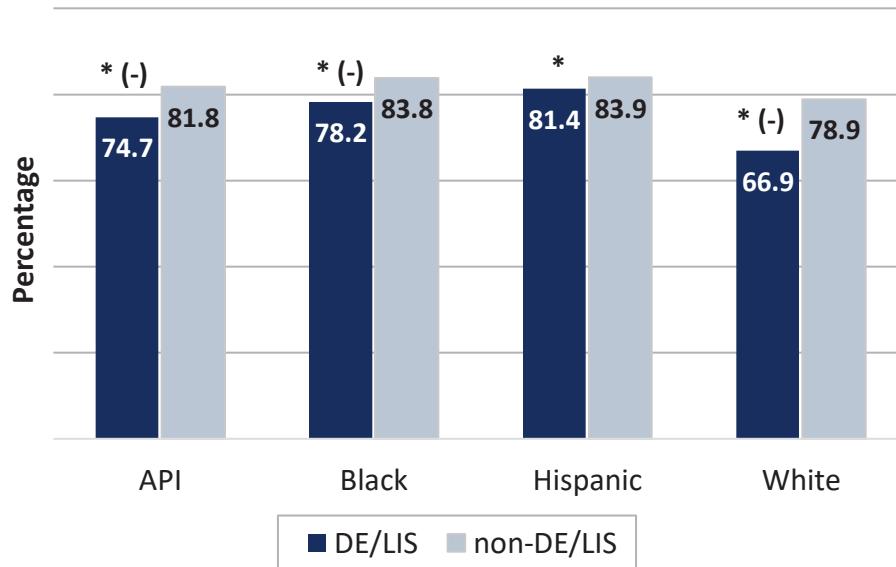
**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API, Black, Hispanic, and White beneficiaries, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had their BMIs documented.

## Breast Cancer Screening

Percentage of female MA beneficiaries aged 50 to 74 years who had appropriate screening for breast cancer in the past two years, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among female API, Black, Hispanic, and White beneficiaries, those who were DE/LIS were less likely than those who were non-DE/LIS to have been appropriately screened for breast cancer. The difference between female API DE/LIS and female API non-DE/LIS beneficiaries was greater than 3 percentage points, as were the differences between female Black DE/LIS and female Black non-DE/LIS beneficiaries and between female White DE/LIS and female White non-DE/LIS beneficiaries. The difference between female Hispanic DE/LIS and female Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

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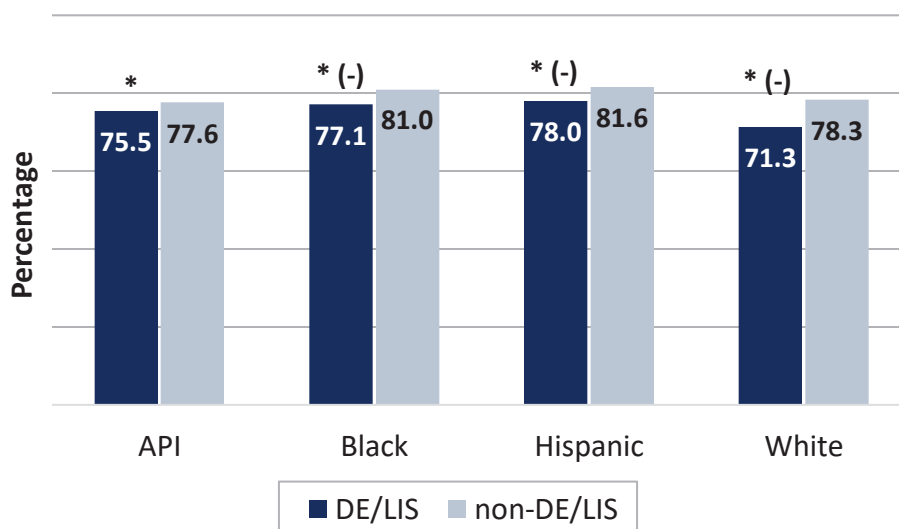
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Colorectal Cancer Screening

Percentage of MA beneficiaries aged 50 to 75 years who had appropriate screening for colorectal cancer, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries, those who were DE/LIS were less likely to have been appropriately screened for colorectal cancer than those who were non-DE/LIS. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was greater than 3 percentage points, as were the differences between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries and between White DE/LIS and White non-DE/LIS beneficiaries.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

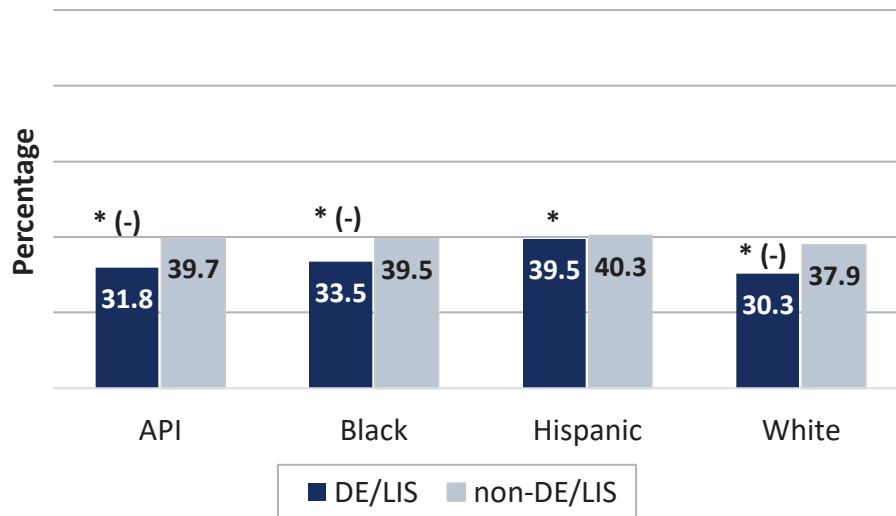
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA beneficiaries aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API, Black, Hispanic, and White beneficiaries with a new diagnosis of COPD or newly active COPD, those who were DE/LIS were less likely than those who were non-DE/LIS to have received a spirometry test to confirm the diagnosis. The difference between API DE/LIS beneficiaries and API non-DE/LIS beneficiaries was greater than 3 percentage points, as were the differences between Black DE/LIS beneficiaries and Black non-DE/LIS beneficiaries and between White DE/LIS beneficiaries and White non-DE/LIS beneficiaries. The difference between Hispanic DE/LIS beneficiaries and Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

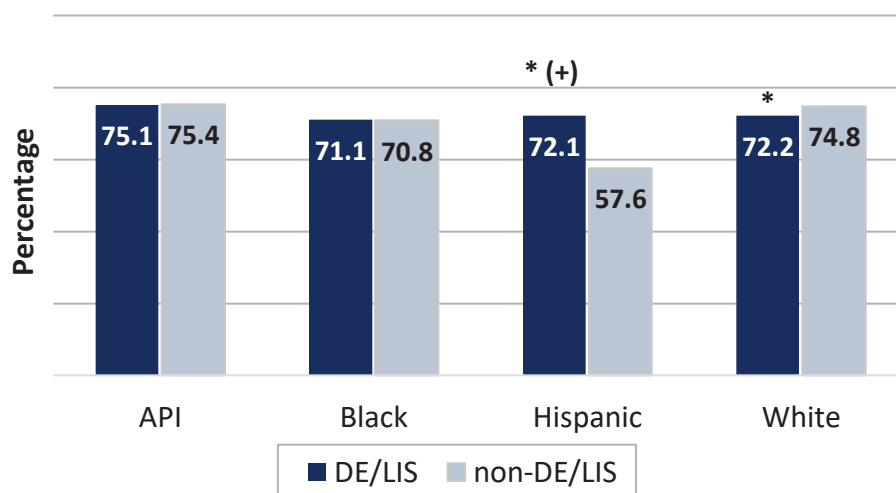
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

**Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by DE/LIS status within race and ethnicity, Reporting Year 2019**



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API and Black beneficiaries who experienced a COPD exacerbation, those who were DE/LIS were about as likely as those who were non-DE/LIS to have been dispensed a systemic corticosteroid within 14 days of the event.
- Among Hispanic beneficiaries who experienced a COPD exacerbation, those who were DE/LIS were more likely than those who were non-DE/LIS to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among White beneficiaries who experienced a COPD exacerbation, those who were DE/LIS were less likely than those who were non-DE/LIS to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between White DE/LIS and White non-DE/LIS beneficiaries was less than 3 percentage points.

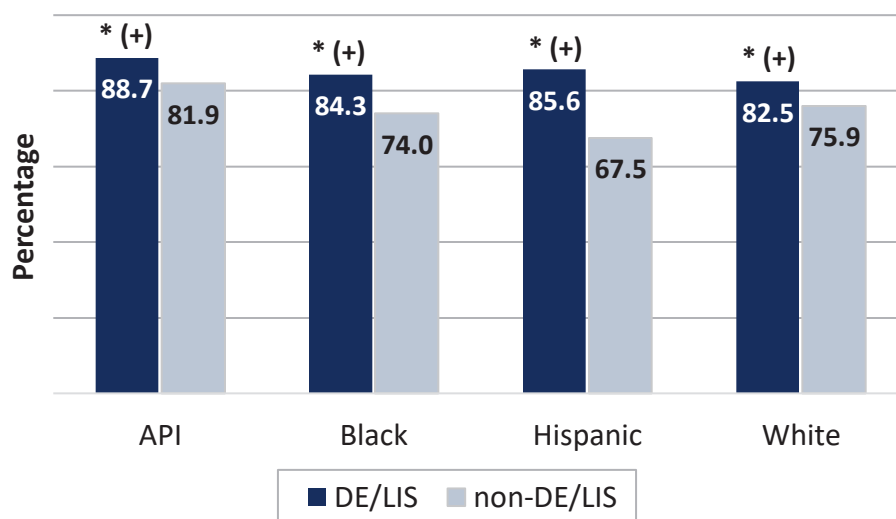
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries who experienced a COPD exacerbation, those who were DE/LIS were more likely than those who were non-DE/LIS to have been dispensed a bronchodilator within 30 days of the event. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

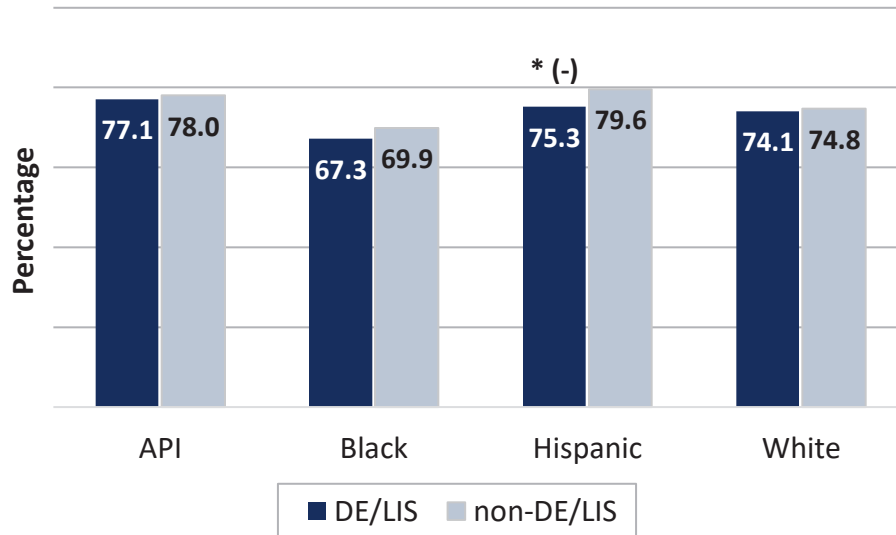
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA beneficiaries aged 18 to 85 years with a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API, Black, and White beneficiaries who had a diagnosis of hypertension, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had their blood pressure adequately controlled.
- Among Hispanic beneficiaries who had a diagnosis of hypertension, those who were DE/LIS were less likely than those who were non-DE/LIS to have had their blood pressure adequately controlled. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

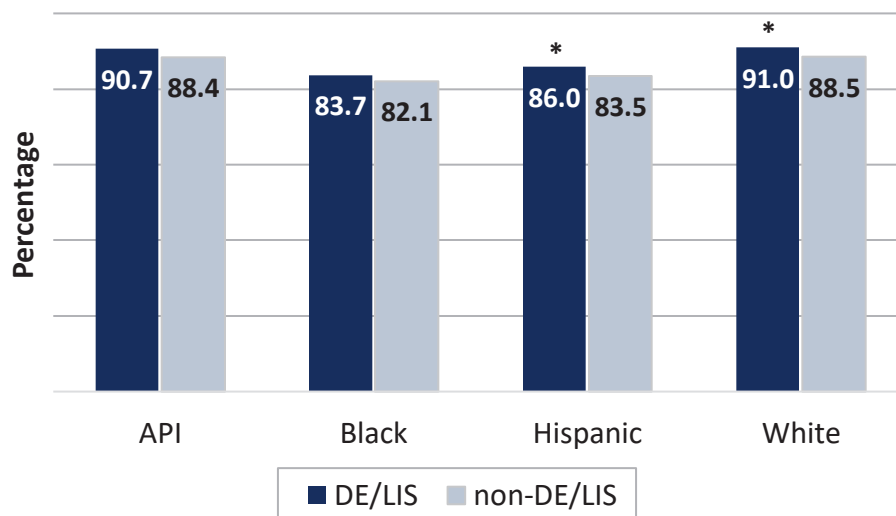
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Less than 140/90 for those 18 to 59 years of age and for those 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for those 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA beneficiaries aged 18 years and older who were hospitalized and discharged with a diagnosis of AMI who received continuous beta-blocker treatment for six months after discharge, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API and Black beneficiaries who were hospitalized for a heart attack, those who were DE/LIS were about as likely as those who were non-DE/LIS to have received continuous beta-blocker treatment.
- Among Hispanic and White beneficiaries who were hospitalized for a heart attack, those who were DE/LIS were more likely than those who were non-DE/LIS to have received continuous beta-blocker treatment. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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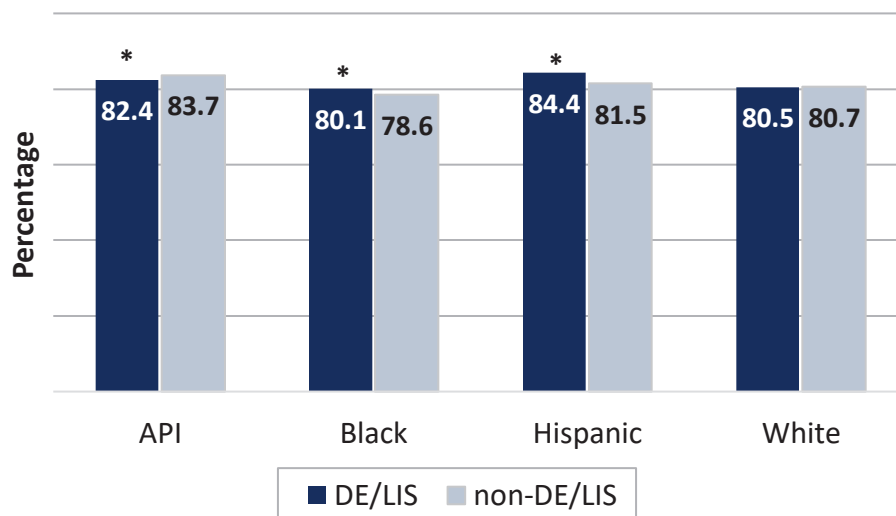
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Cardiovascular Disease

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical ASCVD who received statin therapy, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API beneficiaries with ASCVD, those who were DE/LIS were less likely than those who were non-DE/LIS to have received statin therapy. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points.
- Among Black and Hispanic beneficiaries with ASCVD, those who were DE/LIS were more likely than those who were non-DE/LIS to have received statin therapy. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.
- Among White beneficiaries with ASCVD, those who were DE/LIS were about as likely as those who were non-DE/LIS to have received statin therapy.

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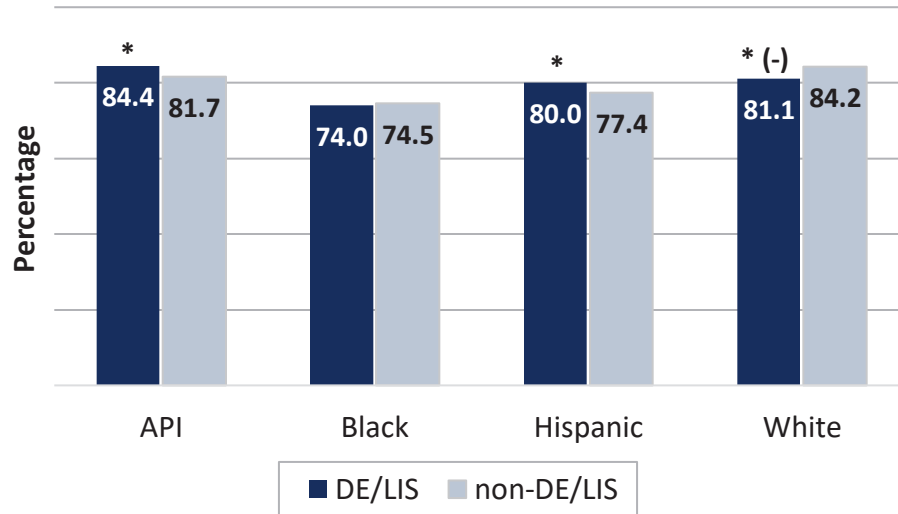
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical ASCVD who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

- Among API and Hispanic beneficiaries with ASCVD, those who were DE/LIS were more likely than those who were non-DE/LIS to have had proper statin medication adherence. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.
- Among Black beneficiaries with ASCVD, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had proper statin medication adherence.
- Among White beneficiaries with ASCVD, those who were DE/LIS were less likely than those who were non-DE/LIS to have had proper statin medication adherence. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

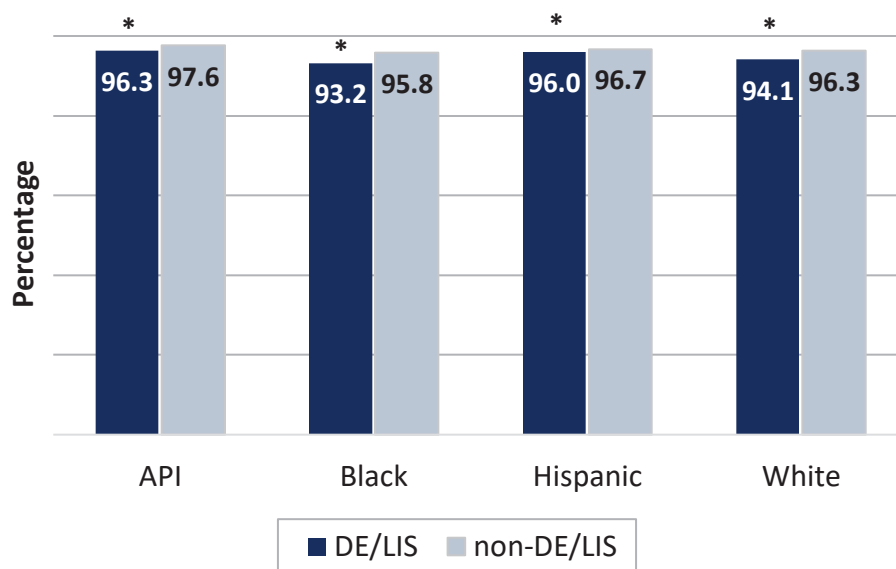
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries with diabetes, those who were DE/LIS were less likely than those who were non-DE/LIS to have had their blood sugar tested at least once in the past year. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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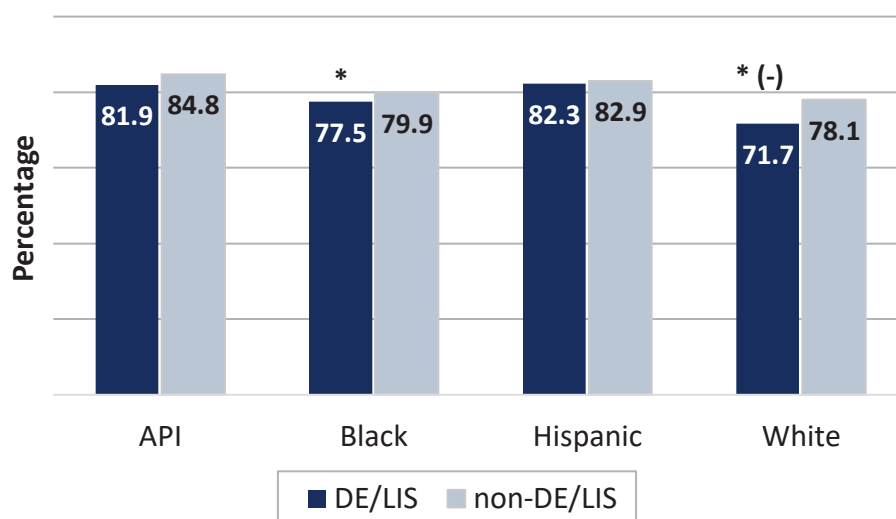
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Eye Exam

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API and Hispanic beneficiaries with diabetes, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had an eye exam in the past year.
- Among Black and White beneficiaries with diabetes, those who were DE/LIS were less likely than those who were non-DE/LIS to have had an eye exam in the past year. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.

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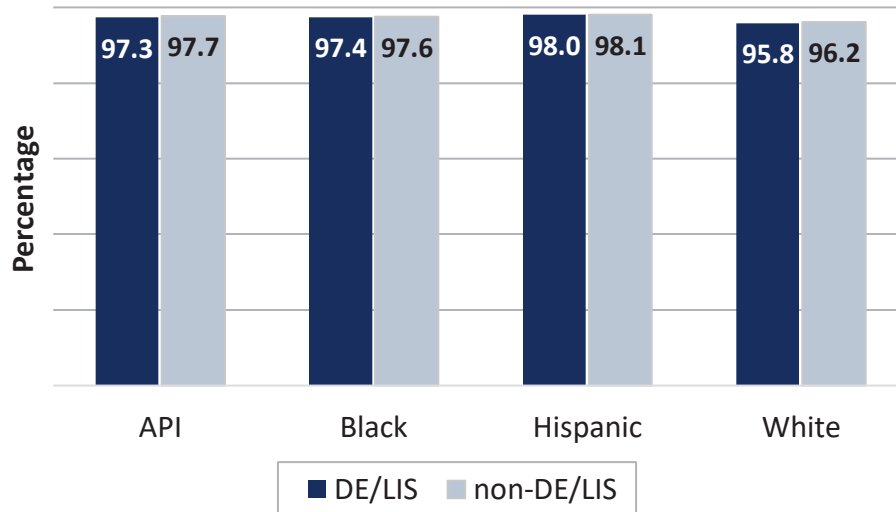
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Kidney Disease Monitoring

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

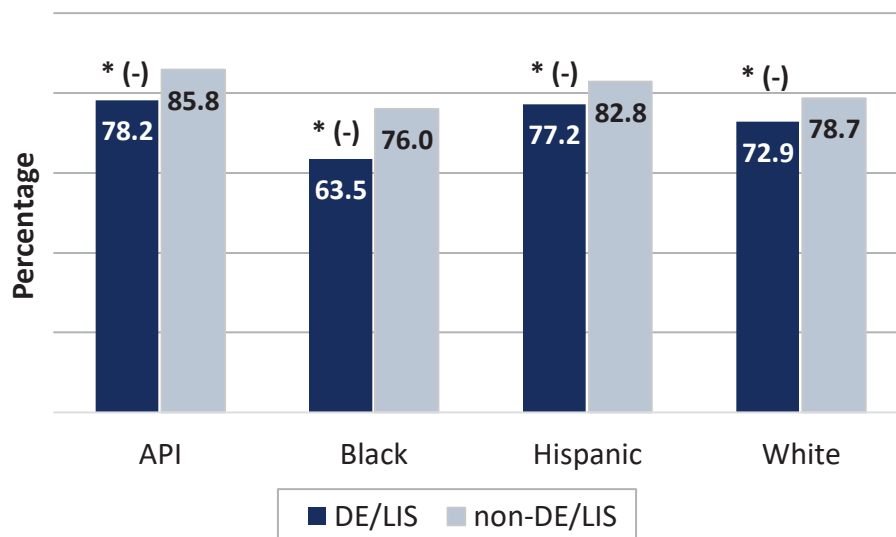
**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries with diabetes, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had medical attention for nephropathy in the past year.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries with diabetes, those who were DE/LIS were less likely than those who were non-DE/LIS to have their blood pressure under control. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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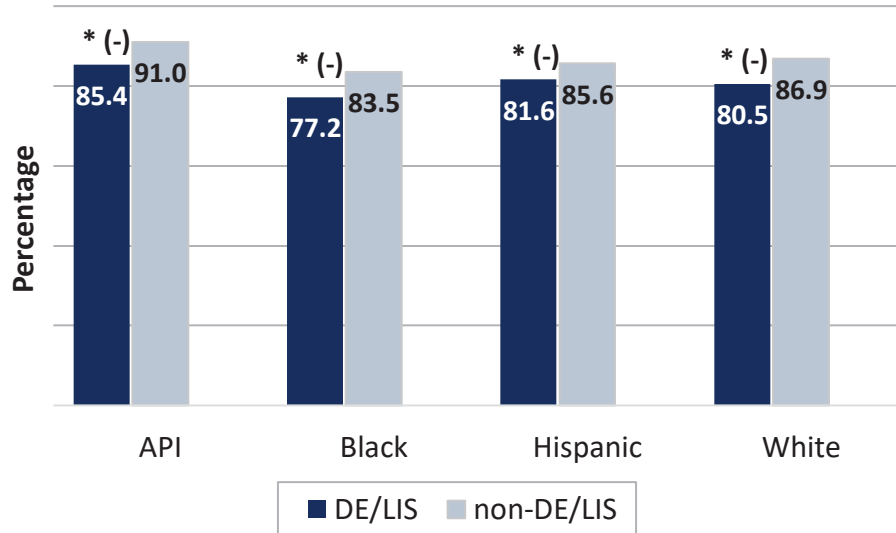
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries with diabetes, those who were DE/LIS were less likely than those who were non-DE/LIS to have their blood sugar level under control. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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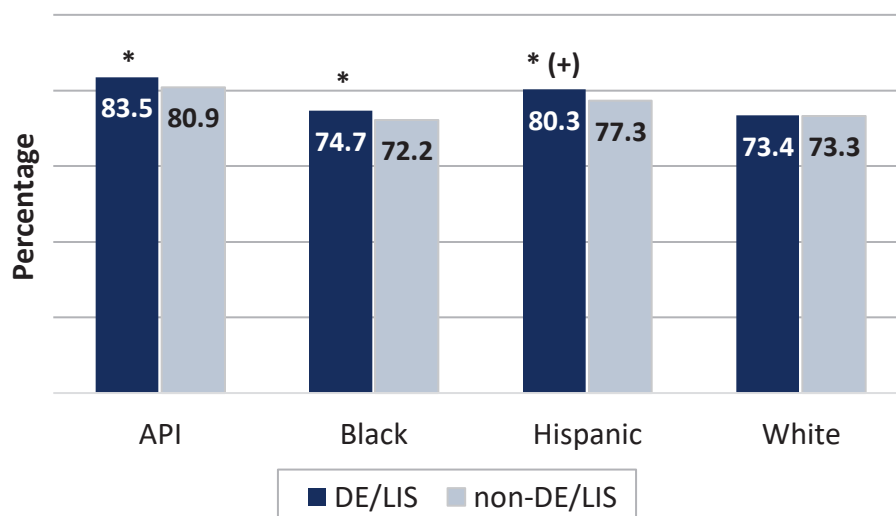
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Diabetes

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, and Hispanic beneficiaries with diabetes, those who were DE/LIS were more likely than those who were non-DE/LIS to have received statin therapy. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points, as was the difference between Black DE/LIS and Black non-DE/LIS beneficiaries. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among White beneficiaries with diabetes, those who were DE/LIS were about as likely as those who were non-DE/LIS to have received statin therapy.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

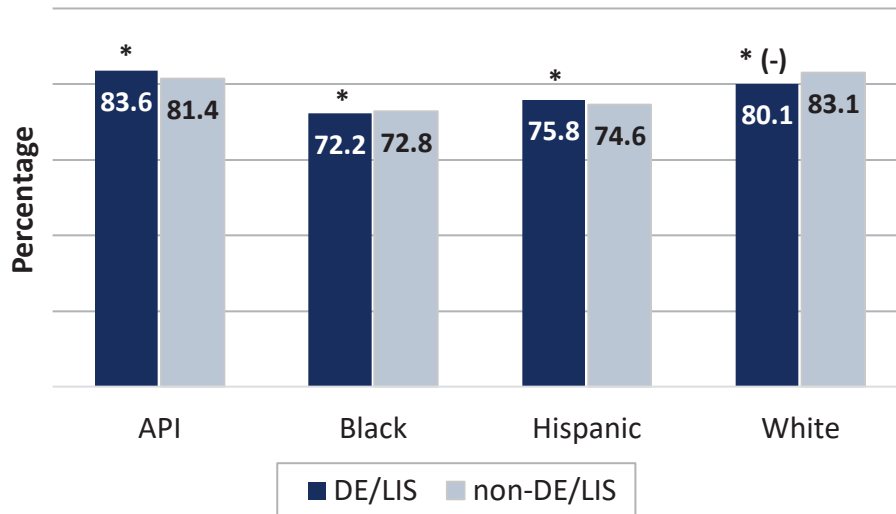
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Medication Adherence for Diabetes—Statins

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API and Hispanic beneficiaries with diabetes, those who were DE/LIS were more likely than those who were non-DE/LIS to have had proper statin medication adherence. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.
- Among Black and White beneficiaries with diabetes, those who were DE/LIS were less likely than those who were non-DE/LIS to have had proper statin medication adherence. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

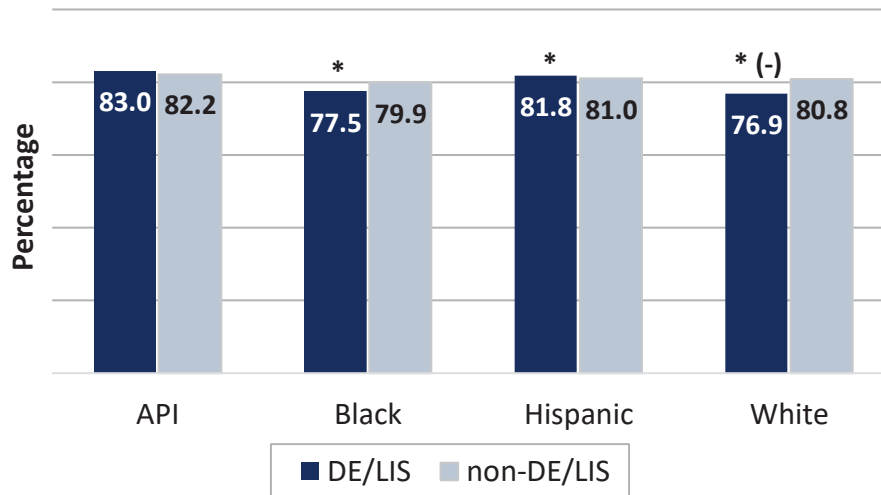
<sup>†</sup> Excludes those who also have clinical ASCVD.



## Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA beneficiaries aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a DMARD, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API beneficiaries who were diagnosed with rheumatoid arthritis, those who were DE/LIS were about as likely as those who were non-DE/LIS to have been dispensed at least one DMARD.
- Among Black and White beneficiaries who were diagnosed with rheumatoid arthritis, those who were DE/LIS were less likely than those who were non-DE/LIS to have been dispensed at least one DMARD. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among Hispanic beneficiaries who were diagnosed with rheumatoid arthritis, those who were DE/LIS were more likely than those who were non-DE/LIS to have been dispensed at least one DMARD. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

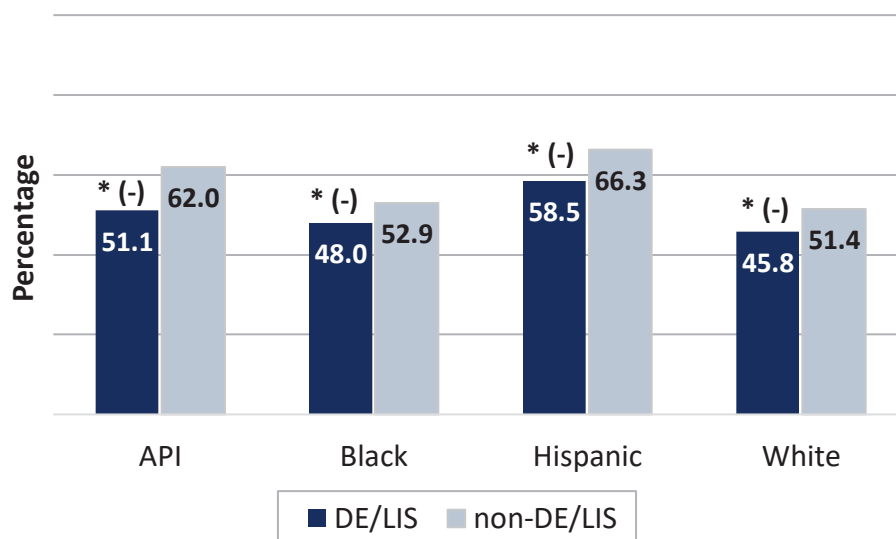
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Osteoporosis Management in Women Who Had a Fracture

Percentage of female MA beneficiaries aged 65 to 85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among female API, Black, Hispanic, and White beneficiaries who suffered a fracture, those who were DE/LIS were less likely than those who were non-DE/LIS to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. In each case, the difference between female DE/LIS beneficiaries and female non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

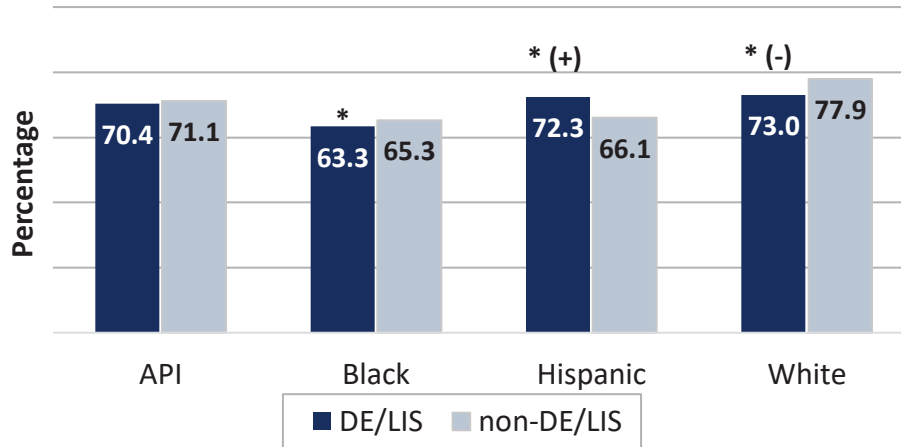
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were about as likely as those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days.
- Among Black and White beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were less likely than those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among Hispanic beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were more likely than those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.

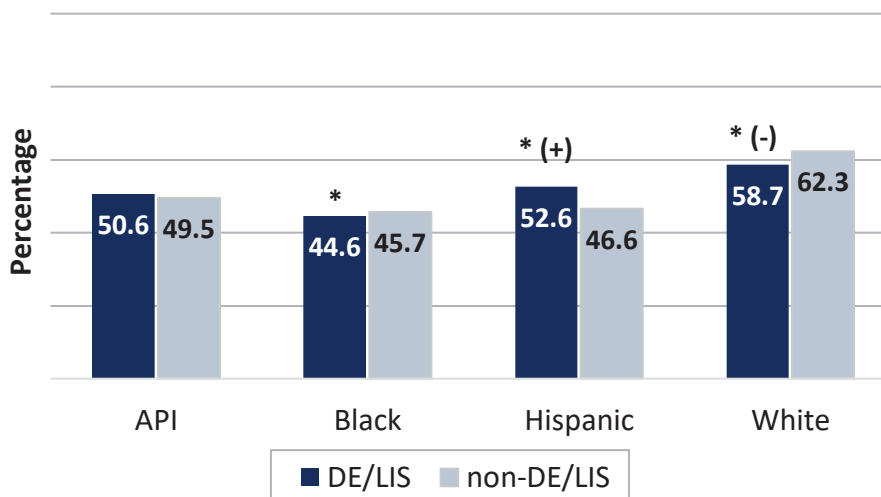
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on antidepressant medication for at least 180 days, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were about as likely as those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days.
- Among Black and White beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were less likely than those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among Hispanic beneficiaries diagnosed with a new episode of major depression, those who were DE/LIS were more likely than those who were non-DE/LIS to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.

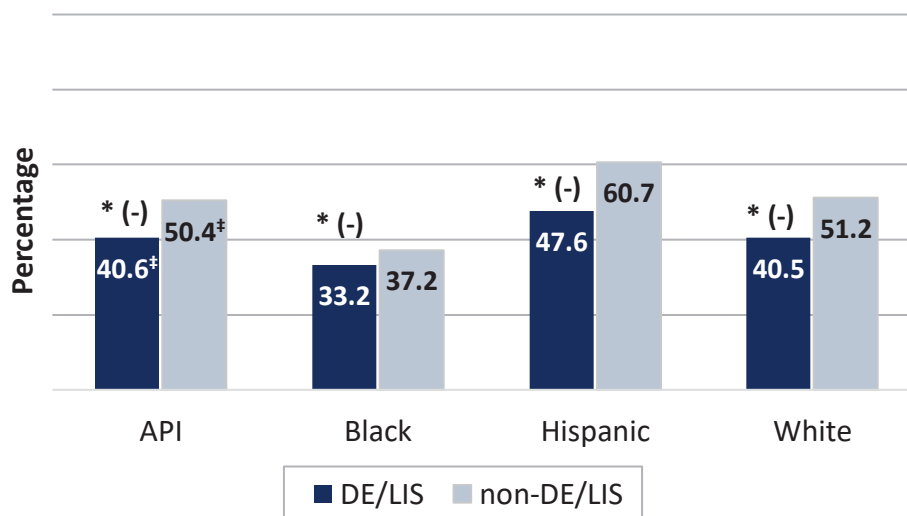
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision is low.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries who were hospitalized for a mental health disorder, those who were DE/LIS were less likely than those who were non-DE/LIS to have had appropriate follow-up care within 30 days of discharge. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

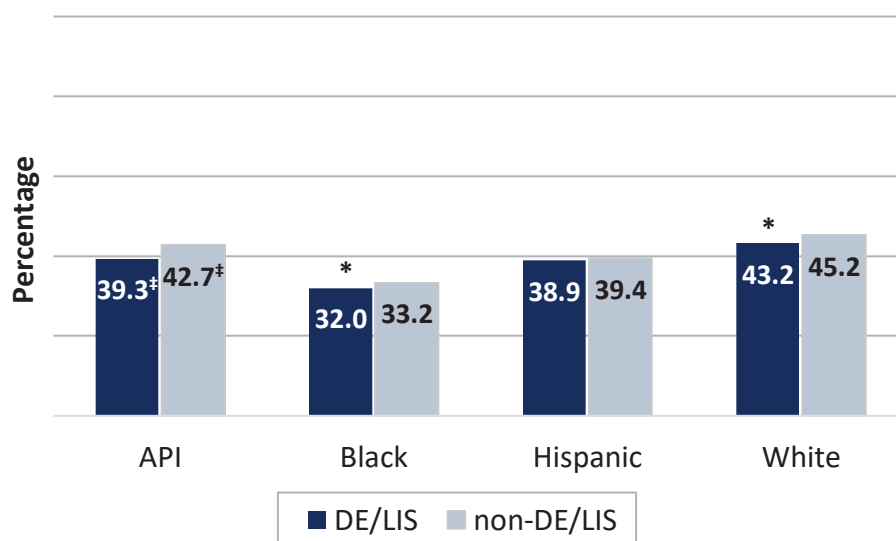
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for the treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

<sup>‡</sup> This score is based on fewer than 400 completed measures, and thus its precision is low.

### Disparities

- Among API and Hispanic beneficiaries who had an ED visit for a mental health disorder, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit.
- Among Black and White beneficiaries who had an ED visit for a mental health disorder, those who were DE/LIS were less likely than those who were non-DE/LIS to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

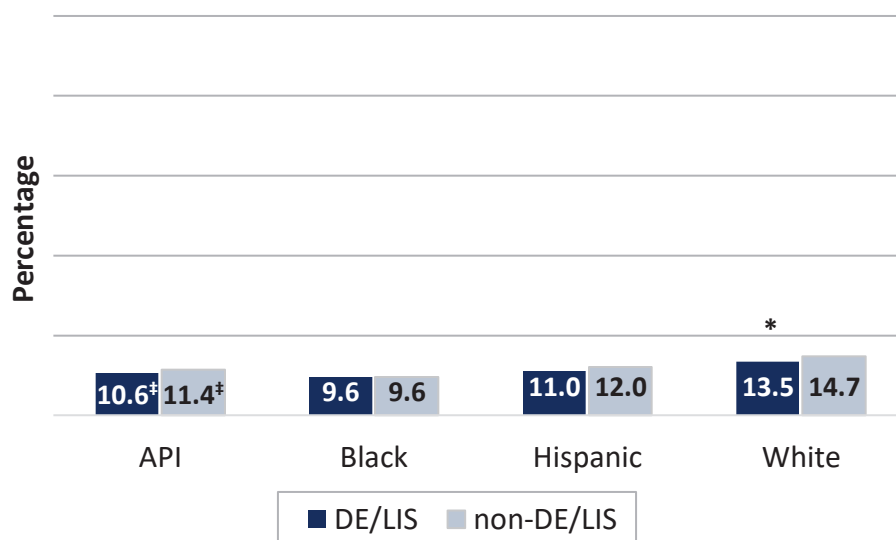
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision is low.

### Disparities

- Among API, Black, and Hispanic beneficiaries who had an ED visit for AOD abuse or dependence, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit.
- Among White beneficiaries who had an ED visit for AOD abuse or dependence, those who were DE/LIS were less likely than those who were non-DE/LIS to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between White DE/LIS and White non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

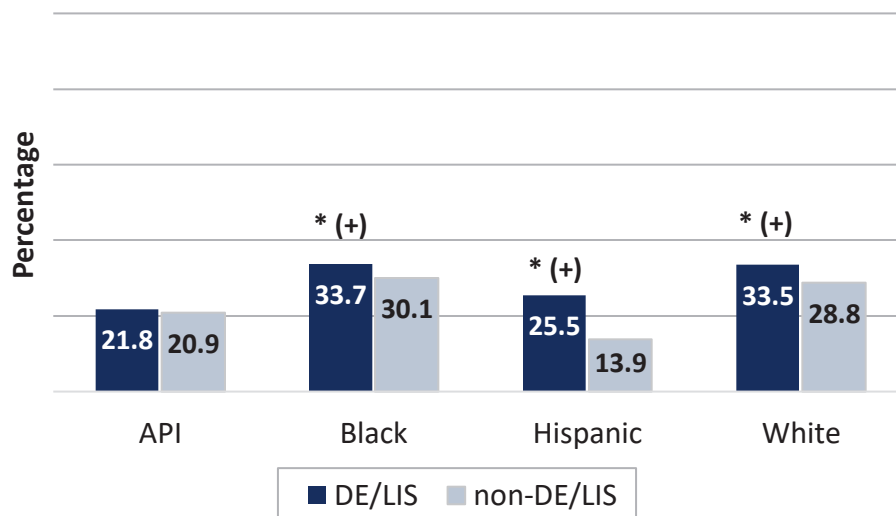
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API beneficiaries with a new episode of AOD dependence, those who were DE/LIS were about as likely as those who were non-DE/LIS to have initiated treatment within 14 days of the diagnosis.
- Among Black, Hispanic, and White beneficiaries with a new episode of AOD dependence, those who were DE/LIS were more likely than those who were non-DE/LIS to have initiated treatment within 14 days of the diagnosis. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

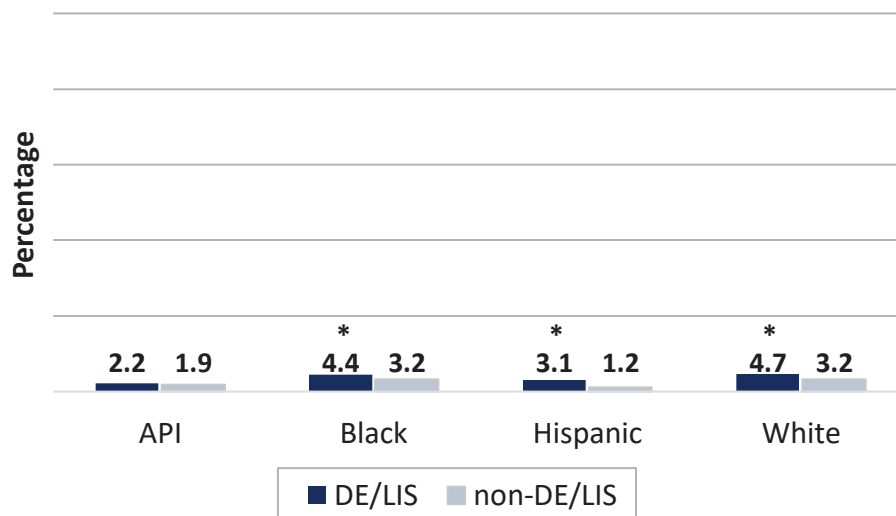
<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation might occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.



## Engagement of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API beneficiaries with a new episode of AOD dependence who initiated treatment, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had two or more additional services within 30 days of the initiation visit.
- Among Black, Hispanic, and White beneficiaries with a new episode of AOD dependence who initiated treatment, those who were DE/LIS were more likely than those who were non-DE/LIS to have had two or more additional services within 30 days of the initiation visit. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

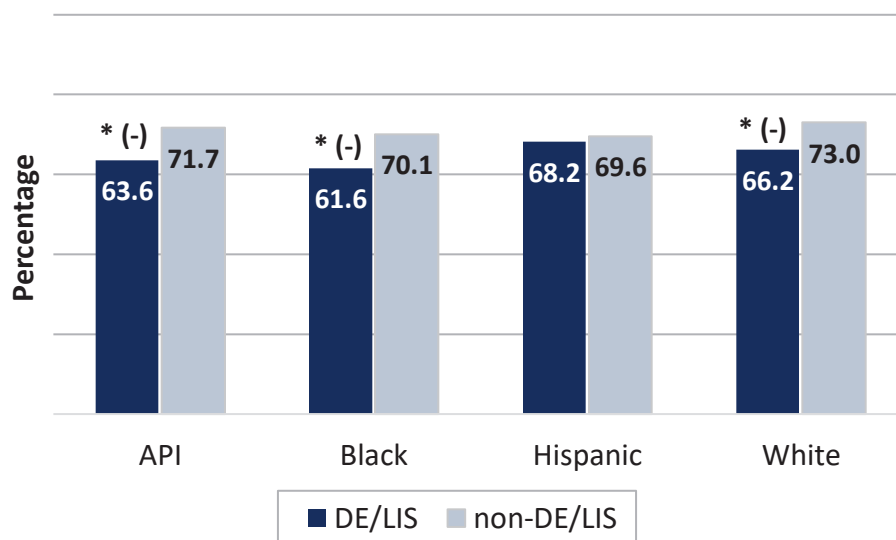
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among API, Black, and White beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were less likely than those who were non-DE/LIS to have had their medications reconciled within 30 days. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points
- Among Hispanic beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were about as likely as those who were non-DE/LIS to have had their medications reconciled within 30 days.

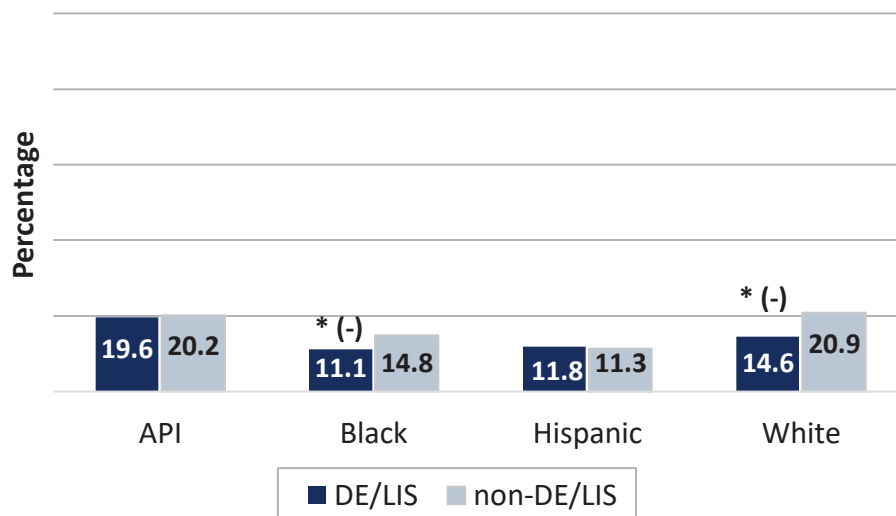
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- The primary or ongoing care providers of API and Hispanic DE/LIS beneficiaries who were discharged from an inpatient facility were, respectively, about as likely as the primary or ongoing care providers of API and Hispanic non-DE/LIS beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission.
- The primary or ongoing care providers of Black and White DE/LIS beneficiaries who were discharged from an inpatient facility were, respectively, less likely than the primary or ongoing care providers of Black and White non-DE/LIS beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In each case, the difference was greater than 3 percentage points.

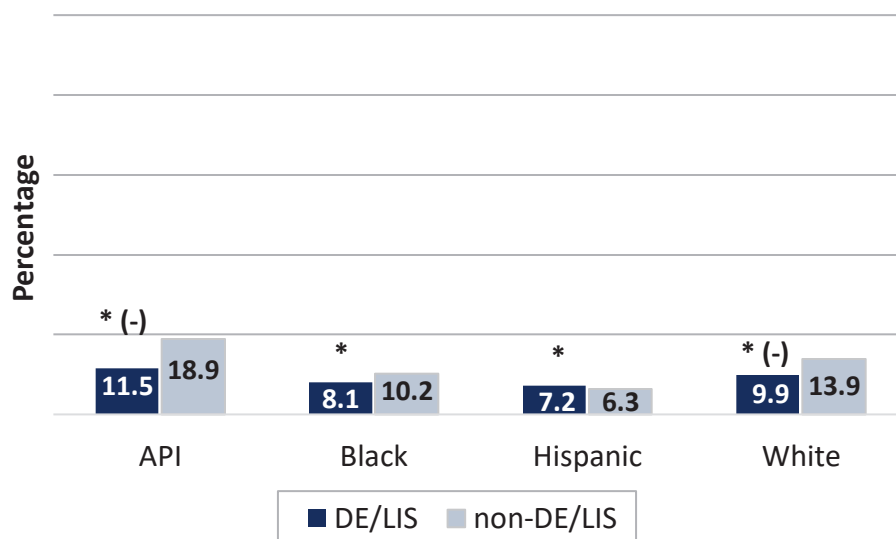
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, and White beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were less likely than those who were non-DE/LIS to have received discharge information on the day of or the day following discharge. The difference between API DE/LIS and API non-DE/LIS beneficiaries was greater than 3 percentage points, as was the difference between White DE/LIS and White non-DE/LIS beneficiaries. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points.
- Among Hispanic beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were more likely than those who were non-DE/LIS to have received discharge information on the day of or the day following discharge. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

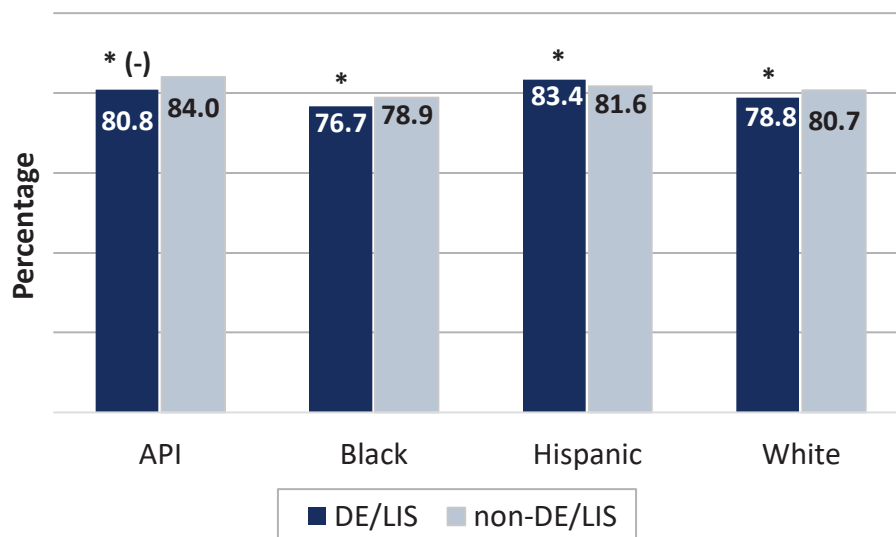
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, and White beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were less likely than those who were non-DE/LIS to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between API DE/LIS and API non-DE/LIS beneficiaries was greater than 3 percentage points. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was less than 3 percentage points, as was the difference between White DE/LIS and White non-DE/LIS beneficiaries.
- Among Hispanic beneficiaries who were discharged from an inpatient facility, those who were DE/LIS were more likely than those who were non-DE/LIS to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between Hispanic DE/LIS and non-DE/LIS beneficiaries was less than 3 percentage points.

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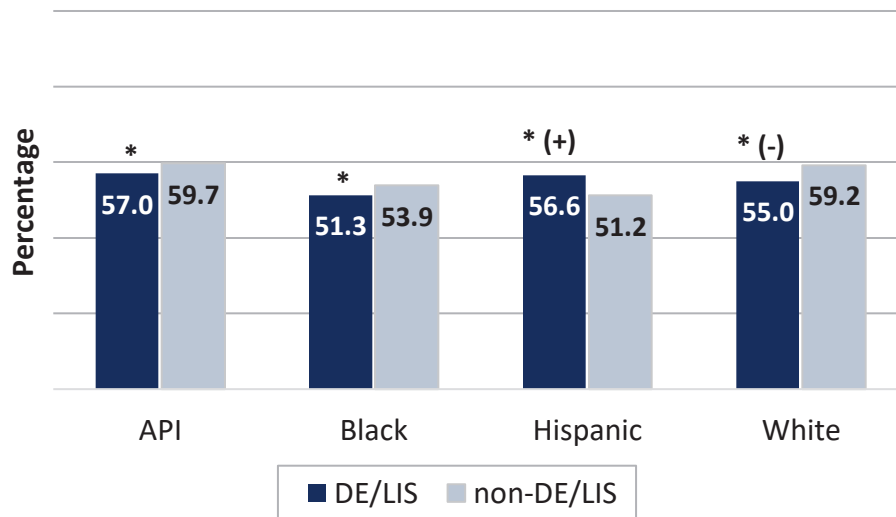
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA beneficiaries aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within 7 days of an ED visit, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, and White beneficiaries with multiple high-risk chronic conditions, those who were DE/LIS were less likely than those who were non-DE/LIS to have received follow-up care within 7 days of an ED visit. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points, as was the difference between Black DE/LIS and Black non-DE/LIS beneficiaries. The difference between White DE/LIS and White non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among Hispanic beneficiaries with multiple high-risk chronic conditions, those who were DE/LIS were more likely than those who were non-DE/LIS to have received follow-up care within 7 days of an ED visit. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

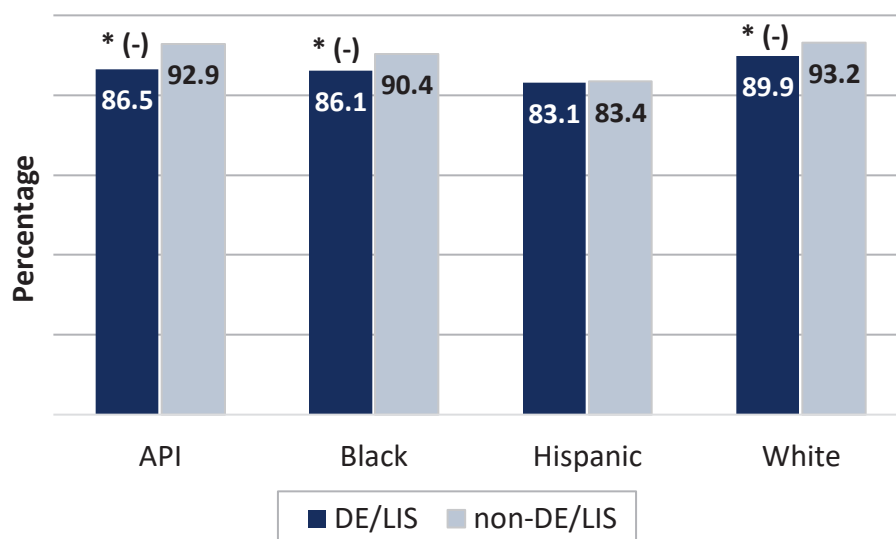
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, AMI, atrial fibrillation, and stroke and transient ischemic attack.

## Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA beneficiaries aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Among elderly API, Black, and White beneficiaries with chronic renal failure, use of potentially harmful medication was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among elderly Hispanic beneficiaries with chronic renal failure, use of potentially harmful medication was avoided about as often for those who were DE/LIS as for those who were non-DE/LIS.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

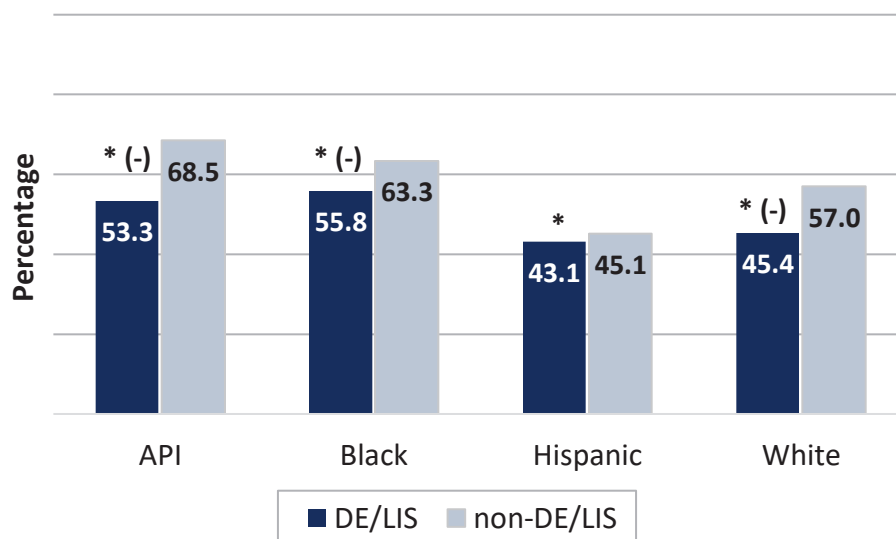
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes cyclooxygenase-2 selective NSAIDs or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA beneficiaries aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among elderly API, Black, Hispanic, and White beneficiaries with dementia, use of potentially harmful medication was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. The difference between API DE/LIS and API non-DE/LIS beneficiaries was greater than 3 percentage points, as were the differences between Black DE/LIS and Black non-DE/LIS beneficiaries and between White DE/LIS and White non-DE/LIS beneficiaries. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

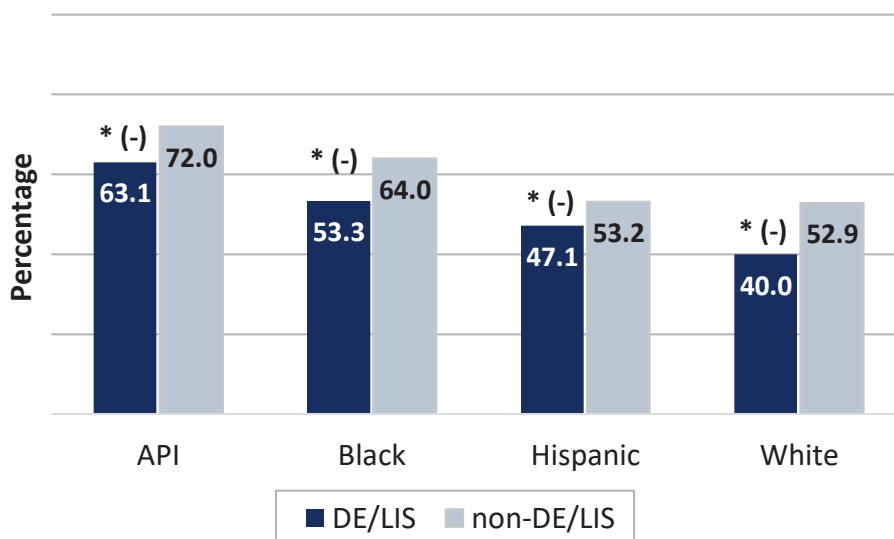
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.



## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA beneficiaries aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among elderly API, Black, Hispanic, and White beneficiaries with a history of falls, use of potentially harmful medication was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

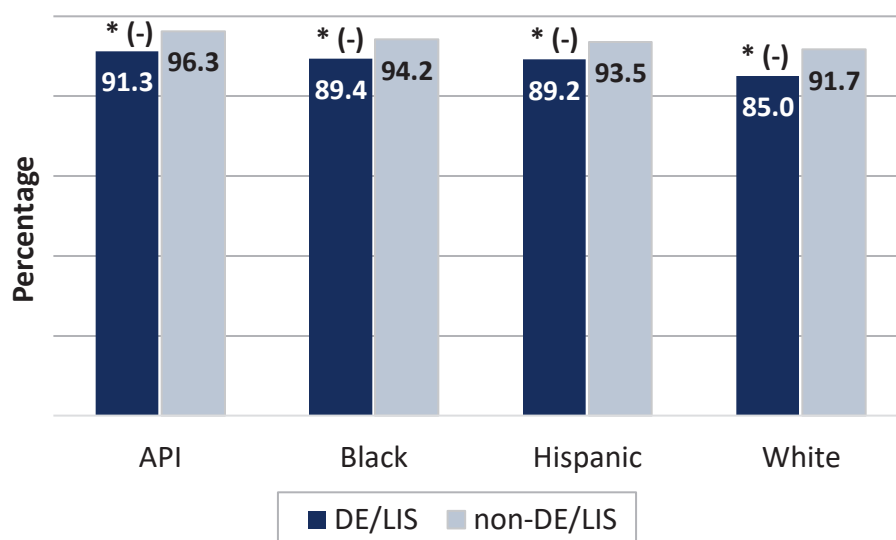
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA beneficiaries aged 65 years and older who were not prescribed a high-risk medication, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among elderly API, Black, Hispanic, and White beneficiaries, use of high-risk medication was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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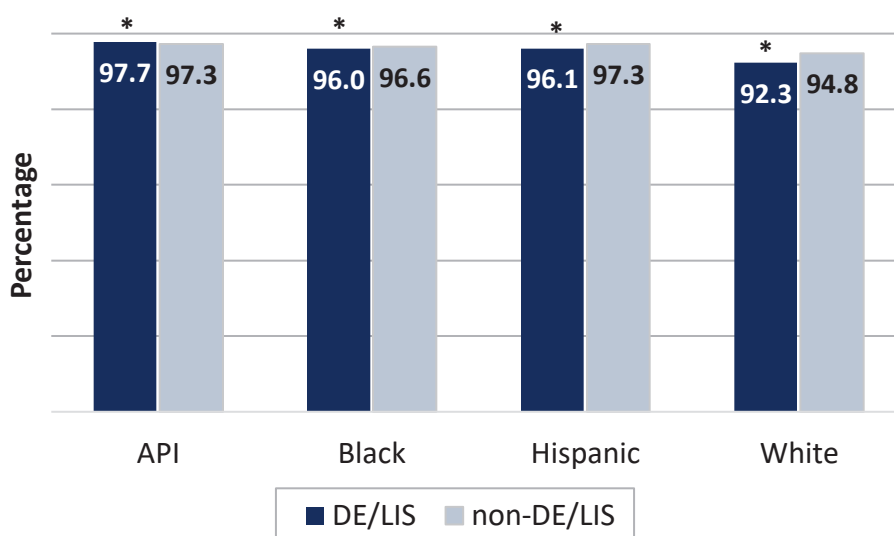
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids at High Dosage

Percentage of MA beneficiaries aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API beneficiaries, use of opioids at a high dosage for more than 14 days was avoided more often for those who were DE/LIS than for those who were non-DE/LIS. The difference between API DE/LIS beneficiaries and API non-DE/LIS beneficiaries was less than 3 percentage points.
- Among Black, Hispanic, and White beneficiaries, use of opioids at a high dosage for more than 14 days was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

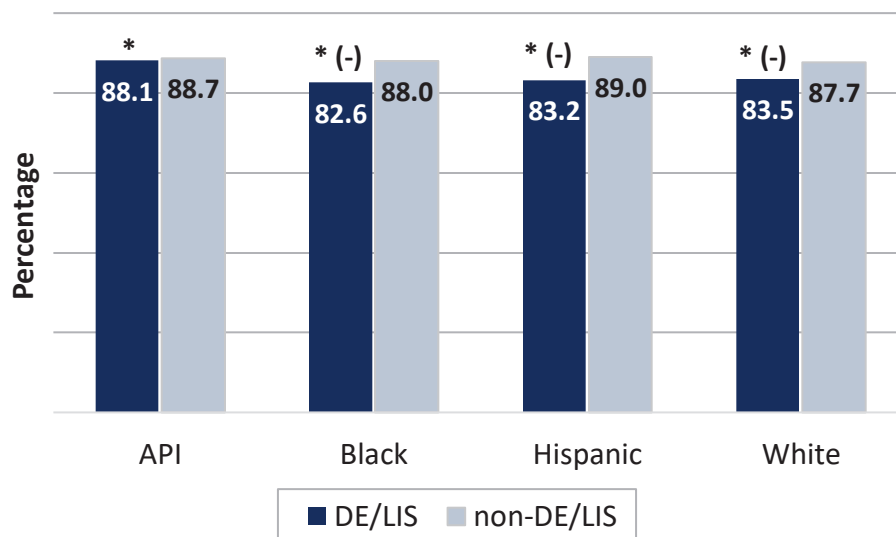
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Average morphine equivalent dose > 120 mg.

## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries, use of opioids from multiple prescribers was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was greater than 3 percentage points, as were the differences between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries and between White DE/LIS and White non-DE/LIS beneficiaries.

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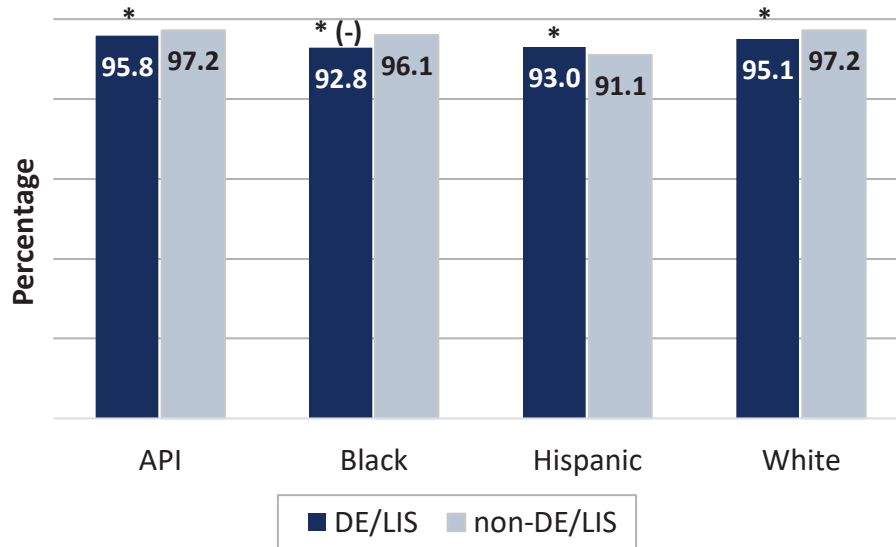
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, and White beneficiaries, use of opioids from multiple pharmacies was avoided less often for those who were DE/LIS than for those who were non-DE/LIS. The difference between API DE/LIS and API non-DE/LIS beneficiaries was less than 3 percentage points, as was the difference between White DE/LIS and White non-DE/LIS beneficiaries. The difference between Black DE/LIS and Black non-DE/LIS beneficiaries was greater than 3 percentage points.
- Among Hispanic beneficiaries, use of opioids from multiple pharmacies was avoided more often for those who were DE/LIS than for those who were non-DE/LIS. The difference between Hispanic DE/LIS and Hispanic non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

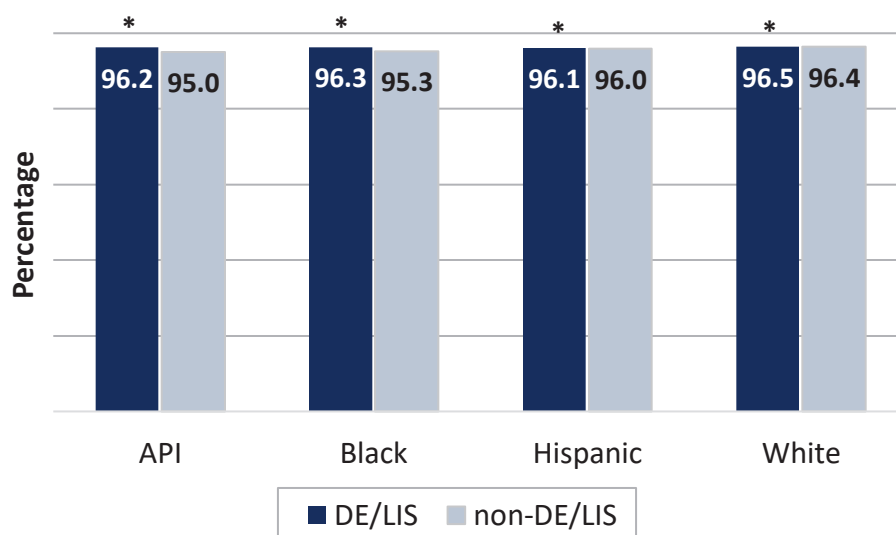
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA beneficiaries aged 65 years and older who had an ambulatory or preventive care visit in the past year, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS. The racial groups, API, Black, and White, are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Among API, Black, Hispanic, and White beneficiaries, those who were DE/LIS were more likely than those who were non-DE/LIS to have had an ambulatory or preventive care visit. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same racial or ethnic group, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

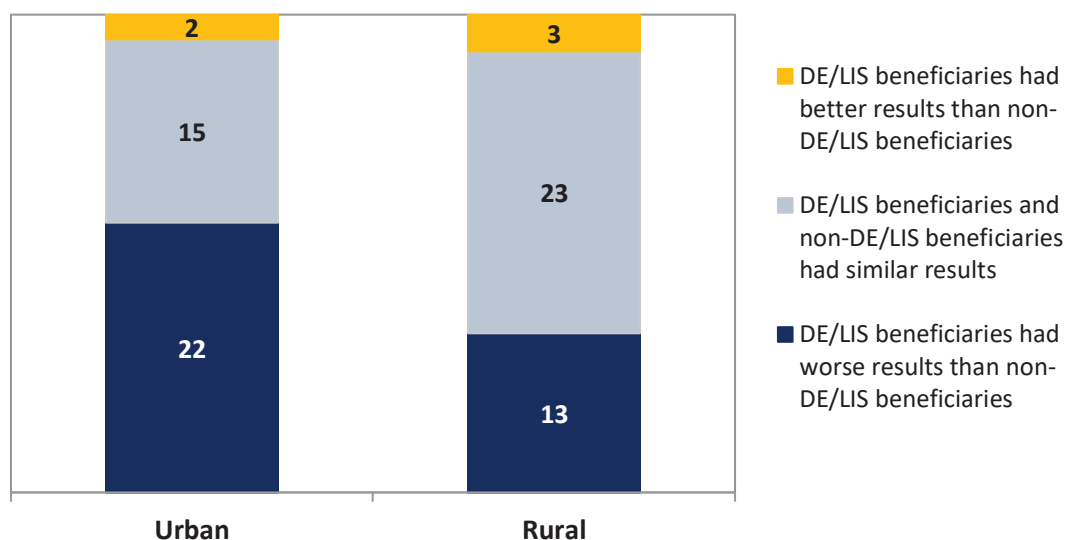
SECTION III:

# DE/LIS Disparities in Health Care in Medicare Advantage Within Urban and Rural Areas



## Summary of DE/LIS Disparities in Clinical Care Within Urban and Rural Areas

Number of clinical care measures for which urban and rural residents who were DE/LIS had results that were worse than, similar to, or better than results for urban and rural residents who were not DE/LIS in Reporting Year 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

Within urban and rural areas, the relative difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries is used to assess disparities.

- **Better** = Results for DE/LIS beneficiaries were better than results for non-DE/LIS beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor DE/LIS beneficiaries.
- **Similar** = Results were similar for DE/LIS and non-DE/LIS beneficiaries. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Results for DE/LIS beneficiaries were worse than results for non-DE/LIS beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor non-DE/LIS beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).



**Urban DE/LIS beneficiaries had worse results than urban non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Colorectal Cancer Screening
- Testing to Confirm COPD
- Medication Adherence for Cardiovascular Disease—Statins
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Medication Adherence for Diabetes—Statins
- Osteoporosis Management in Women Who Had a Fracture
- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-Up After ED Visit for Mental Illness (within 30 days of discharge)
- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Follow-Up After ED Visit for People with High-Risk Multiple Chronic Conditions
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medication in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers
- Avoiding Use of Opioids from Multiple Pharmacies

**Urban DE/LIS beneficiaries had better results than urban non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Initiation of Alcohol or Other Drug Treatment

**Rural DE/LIS beneficiaries had worse results than rural non-DE/LIS beneficiaries**

- Breast Cancer Screening
- Colorectal Cancer Screening
- Testing to Confirm COPD
- Diabetes Care—Eye Exam
- Diabetes Care—Blood Sugar Controlled
- Rheumatoid Arthritis Management
- Osteoporosis Management in Women Who Had a Fracture
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-Up After ED Visit for Mental Illness (within 30 days of discharge)
- Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medication in the Elderly
- Avoiding Use of Opioids from Multiple Prescribers

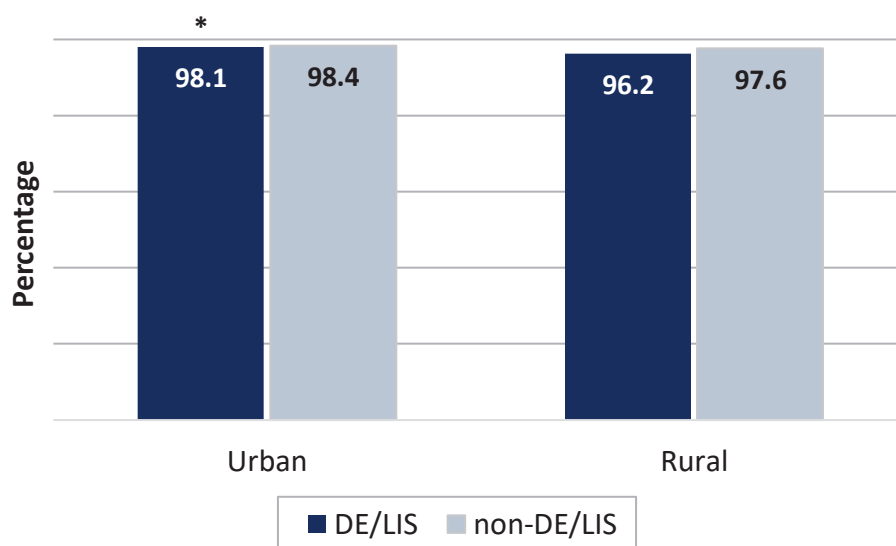
**Rural DE/LIS beneficiaries had better results than rural non-DE/LIS beneficiaries**

- Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid
- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator
- Initiation of Alcohol or Other Drug Treatment

## Prevention and Screening

### Adult Body Mass Index (BMI) Assessment

Percentage of Medicare beneficiaries aged 18 to 74 years who had an outpatient visit whose BMIs were documented in the past two years, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries were less likely than non-DE/LIS beneficiaries to have had their BMIs documented. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points.
- In rural areas, DE/LIS beneficiaries were about as likely as non-DE/LIS beneficiaries to have had their BMIs documented.

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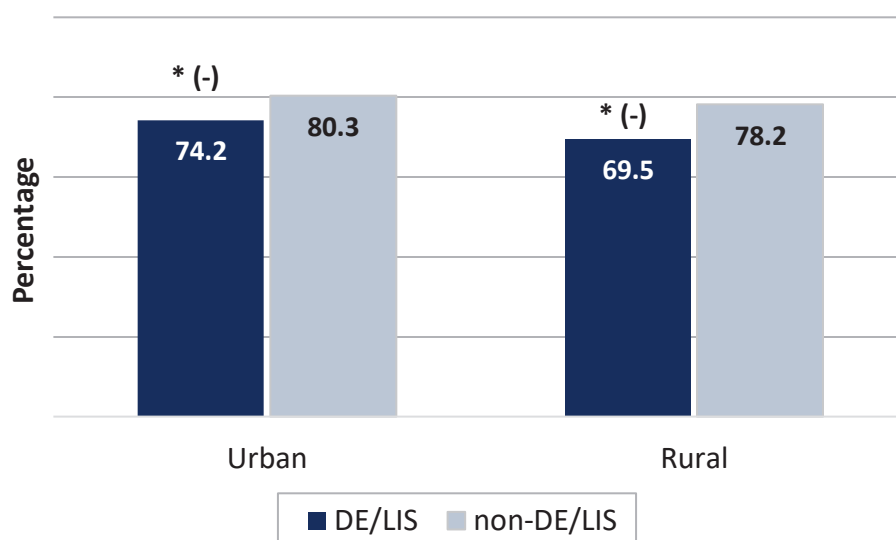
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Breast Cancer Screening

Percentage of female MA beneficiaries aged 50 to 74 years who had appropriate screening for breast cancer in the past two years, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, female DE/LIS beneficiaries were less likely than female non-DE/LIS beneficiaries to have been appropriately screened for breast cancer. In each case, the difference between female DE/LIS beneficiaries and female non-DE/LIS beneficiaries was greater than 3 percentage points.

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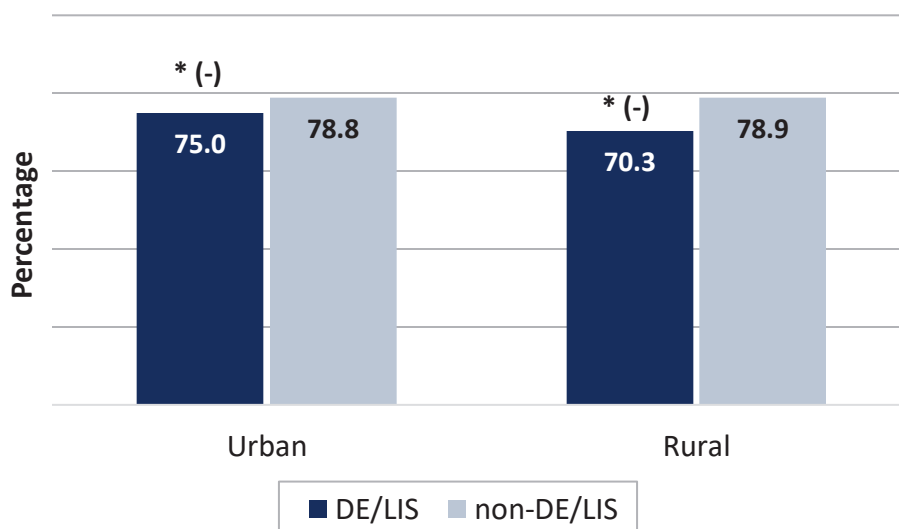
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Colorectal Cancer Screening

Percentage of MA beneficiaries aged 50 to 75 years who had appropriate screening for colorectal cancer, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries were less likely than non-DE/LIS beneficiaries to have been appropriately screened for colorectal cancer. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

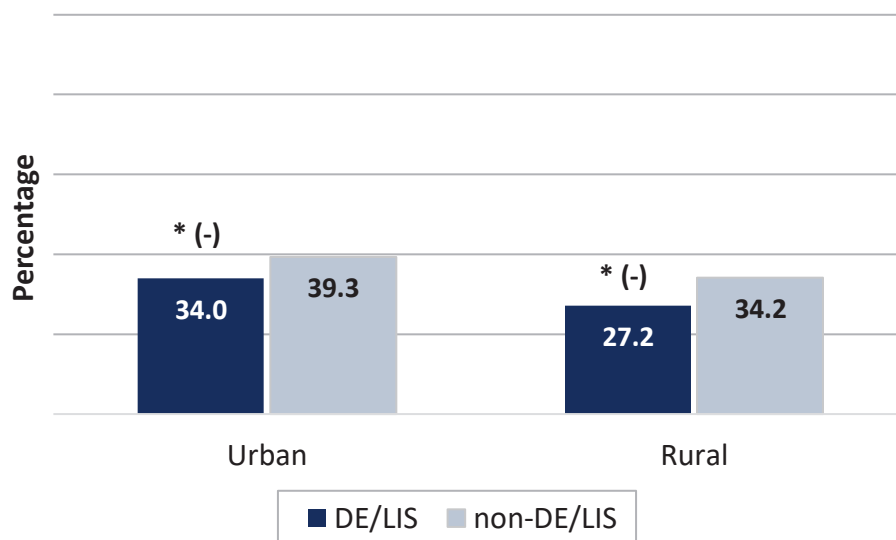
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA beneficiaries aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with a new diagnosis of COPD or newly active COPD were less likely than non-DE/LIS beneficiaries with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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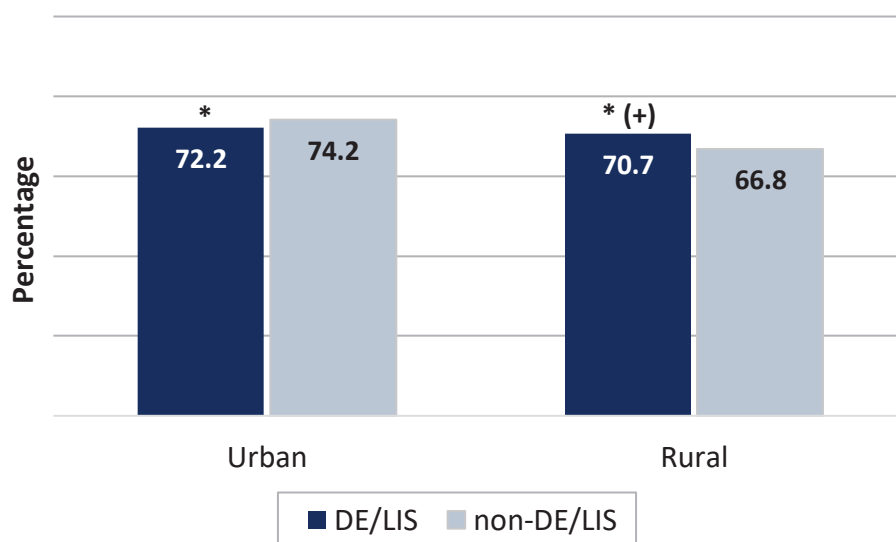
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

**Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by DE/LIS status within urban and rural areas, Reporting Year 2019**



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries who experienced a COPD exacerbation were less likely than non-DE/LIS beneficiaries who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points.
- In rural areas, DE/LIS beneficiaries who experienced a COPD exacerbation were more likely than non-DE/LIS beneficiaries who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was greater than 3 percentage points.

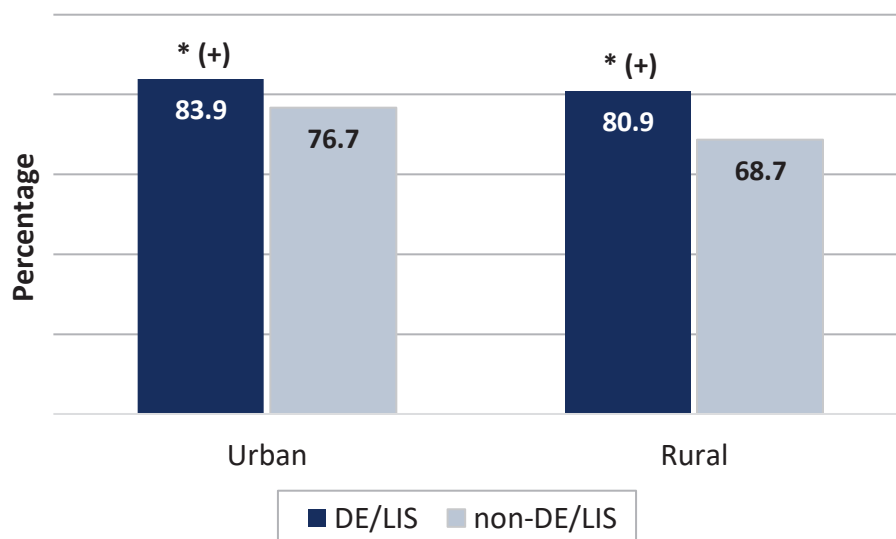
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA beneficiaries aged 40 years and older who had an acute inpatient discharge or ED encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who experienced a COPD exacerbation were more likely than non-DE/LIS beneficiaries who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

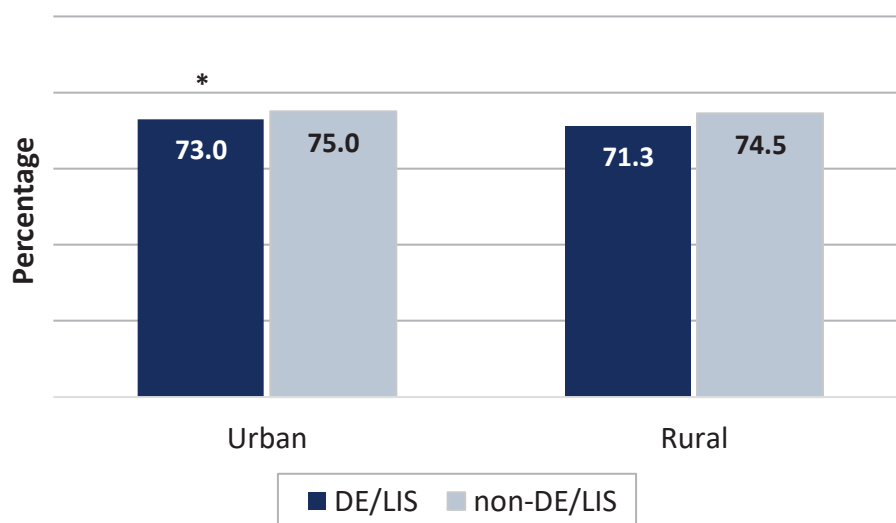
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA beneficiaries aged 18 to 85 years with a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries who had a diagnosis of hypertension were less likely than non-DE/LIS beneficiaries who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points.
- In rural areas, DE/LIS beneficiaries who had a diagnosis of hypertension were about as likely as non-DE/LIS beneficiaries who had a diagnosis of hypertension to have had their blood pressure adequately controlled.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

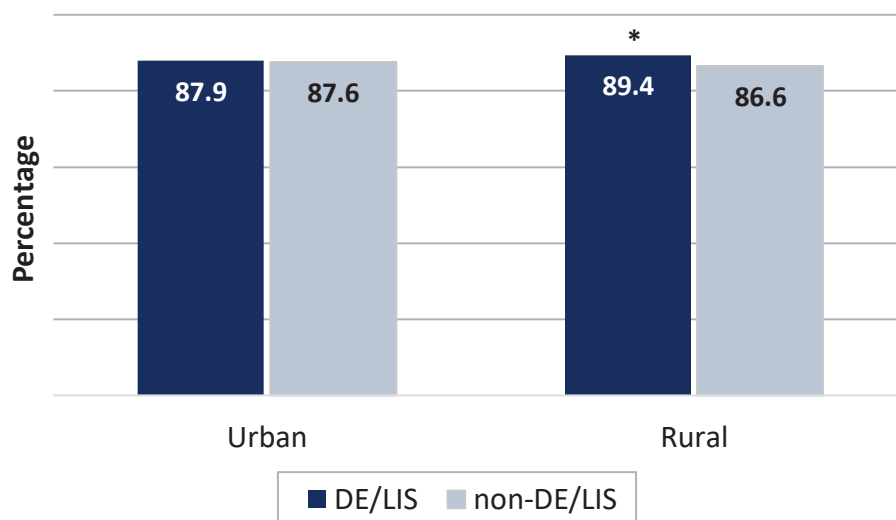
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Less than 140/90 for those 18 to 59 years of age and for those 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for those 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA beneficiaries aged 18 years and older who were hospitalized and discharged with a diagnosis of AMI who received continuous beta-blocker treatment for six months after discharge, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries who were hospitalized for a heart attack were about as likely as non-DE/LIS beneficiaries who were hospitalized for a heart attack to have received continuous beta-blocker treatment.
- In rural areas, DE/LIS beneficiaries who were hospitalized for a heart attack were more likely than non-DE/LIS beneficiaries who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

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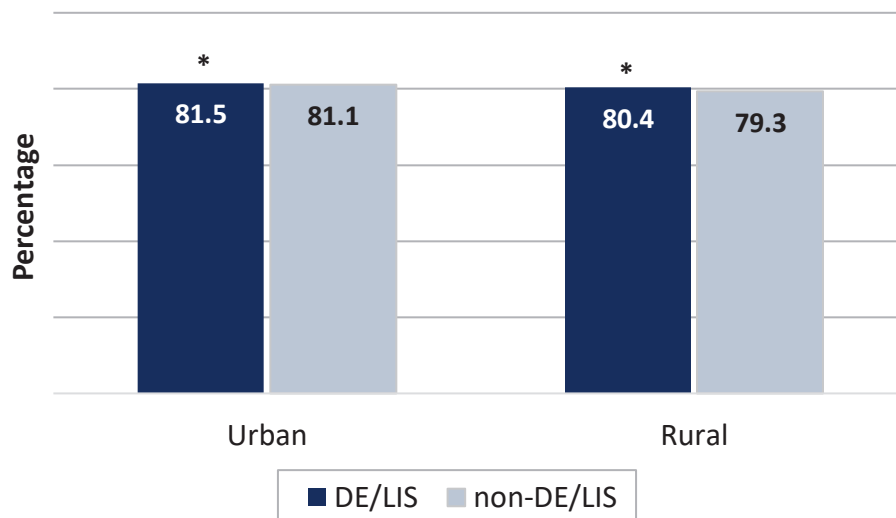
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Cardiovascular Disease

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical ASCVD who received statin therapy, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with ASCVD were more likely than non-DE/LIS beneficiaries with ASCVD to have received statin therapy. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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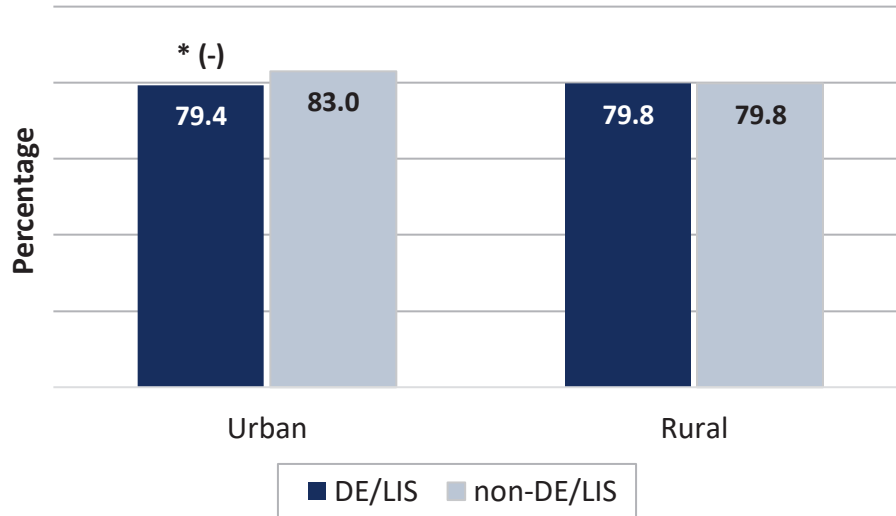
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA beneficiaries aged 21 to 75 years and female MA beneficiaries aged 40 to 75 years with clinical ASCVD who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries with ASCVD were less likely than non-DE/LIS beneficiaries with ASCVD to have had proper statin medication adherence. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries with ASCVD were about as likely as non-DE/LIS beneficiaries with ASCVD to have had proper statin medication adherence.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

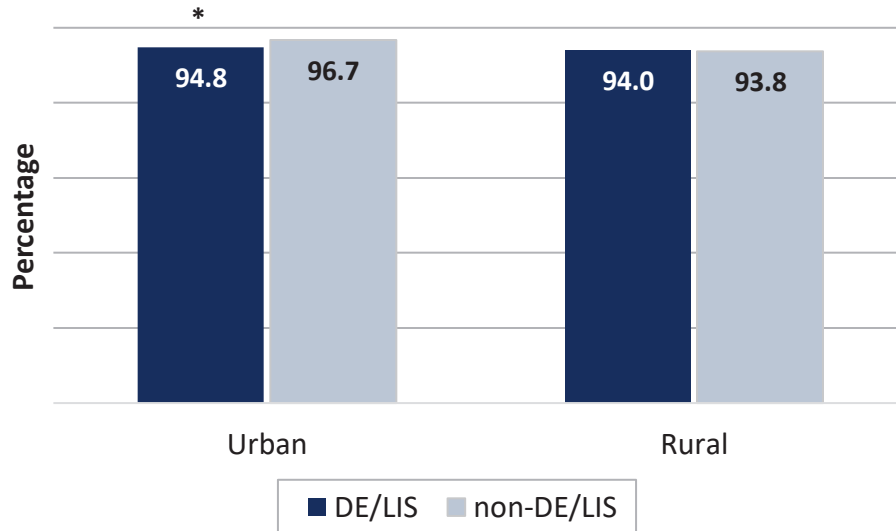
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had their blood sugar tested at least once in the past year. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points.
- In rural areas, DE/LIS beneficiaries with diabetes were about as likely as non-DE/LIS beneficiaries with diabetes to have had their blood sugar tested at least once in the past year.

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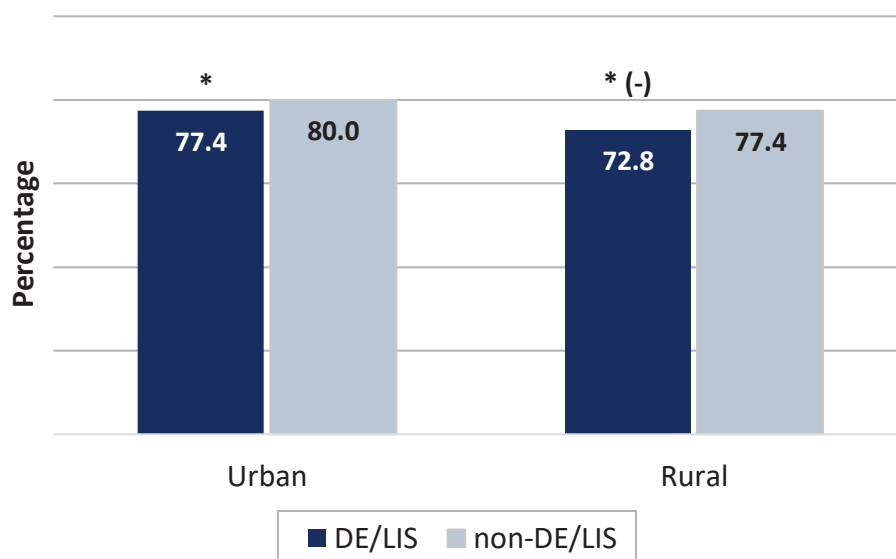
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Eye Exam

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had an eye exam in the past year. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was greater than 3 percentage points.

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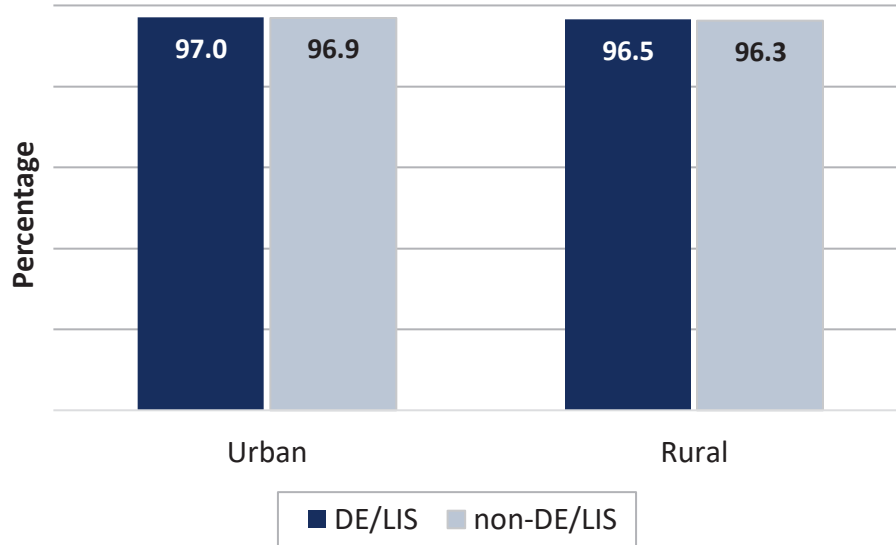
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Diabetes Care—Kidney Disease Monitoring

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

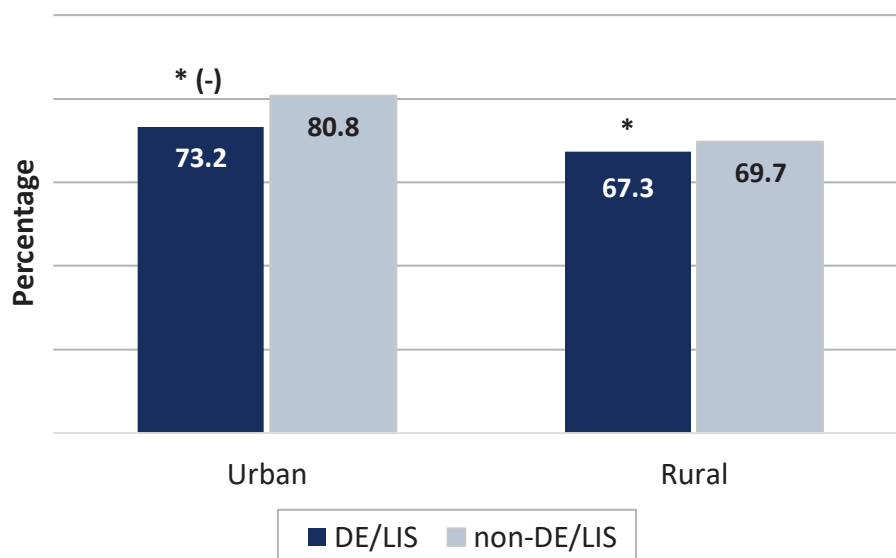
**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with diabetes were about as likely as non-DE/LIS beneficiaries with diabetes to have had medical attention for nephropathy in the past year.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have their blood pressure under control. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

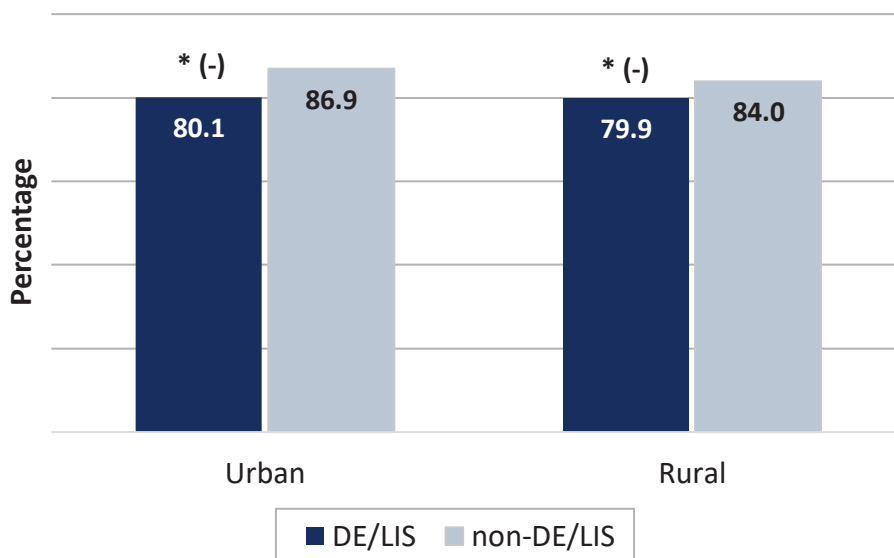
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Diabetes Care—Blood Sugar Controlled

Percentage of MA beneficiaries aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had their blood sugar level under control. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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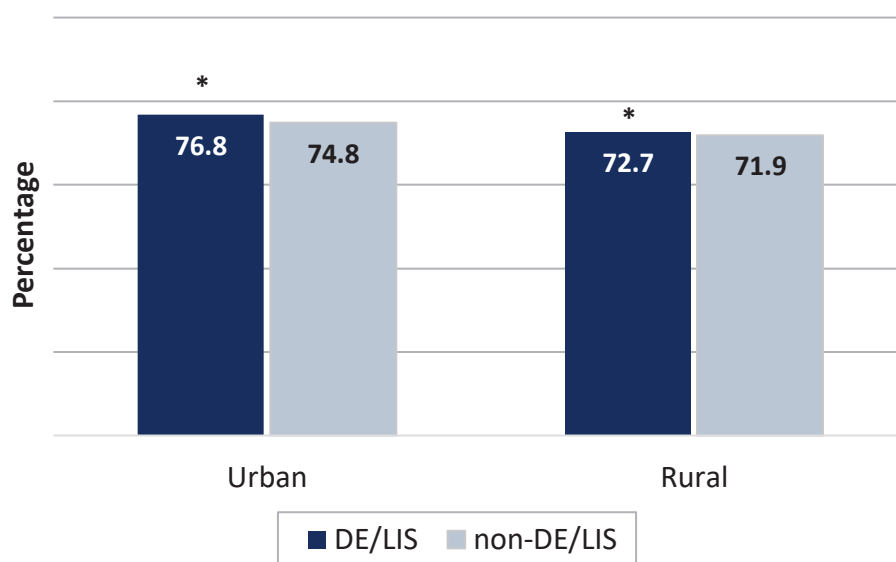
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Statin Use in Patients with Diabetes

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with diabetes were more likely than non-DE/LIS beneficiaries with diabetes to have received statin therapy. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

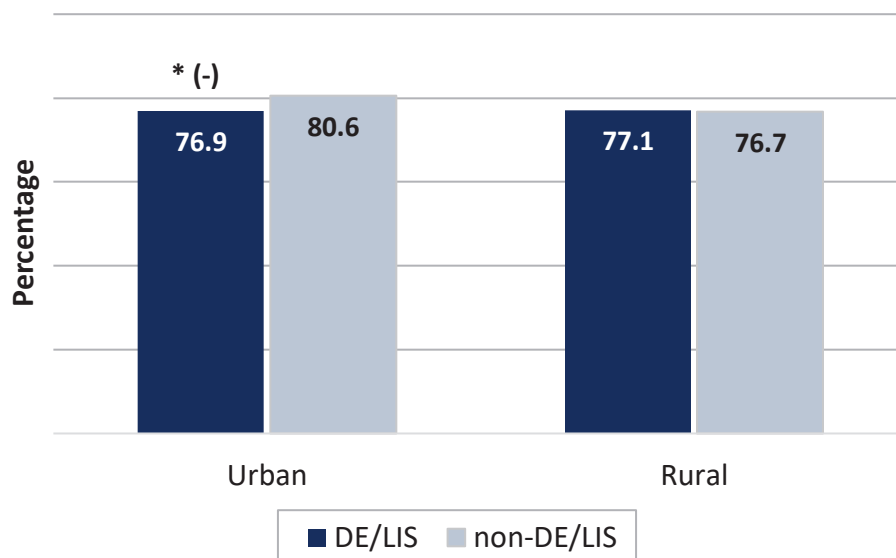
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Medication Adherence for Diabetes—Statins

Percentage of MA beneficiaries aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries with diabetes were less likely than non-DE/LIS beneficiaries with diabetes to have had proper statin medication adherence. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries with diabetes were about as likely as non-DE/LIS beneficiaries with diabetes to have had proper statin medication adherence.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

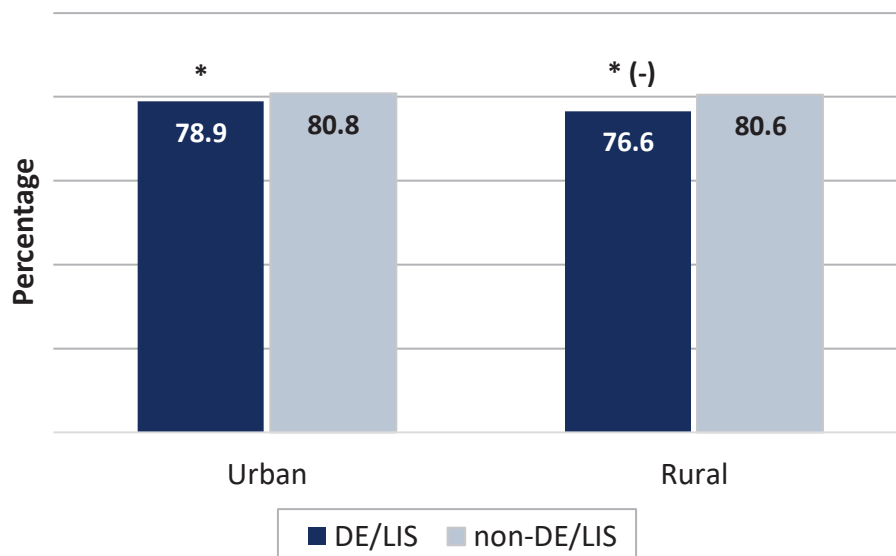
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA beneficiaries aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a DMARD, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who were diagnosed with rheumatoid arthritis were less likely than non-DE/LIS beneficiaries who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was greater than 3 percentage points.

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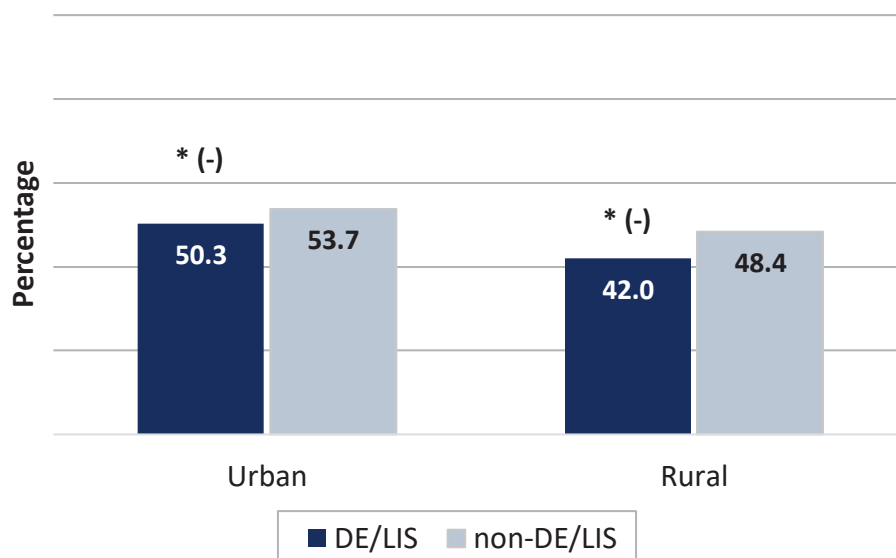
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Osteoporosis Management in Women Who Had a Fracture

Percentage of female MA beneficiaries aged 65 to 85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, female DE/LIS beneficiaries who suffered a fracture were less likely than female non-DE/LIS beneficiaries who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. In each case, the difference between female DE/LIS beneficiaries and female non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

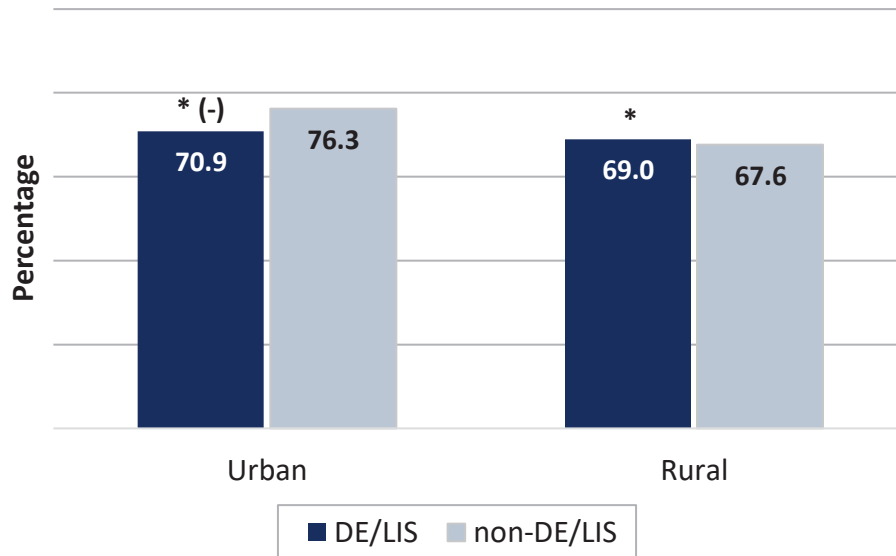
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries diagnosed with a new episode of major depression were less likely than non-DE/LIS beneficiaries diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries diagnosed with a new episode of major depression were more likely than non-DE/LIS beneficiaries diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

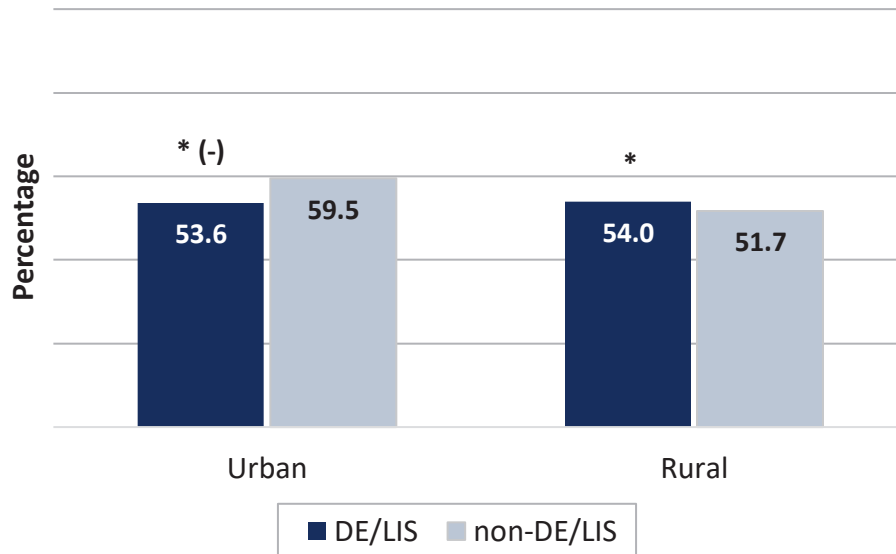
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA beneficiaries aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on antidepressant medication for at least 180 days, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries who were diagnosed with a new episode of major depression were less likely than non-DE/LIS beneficiaries who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries who were diagnosed with a new episode of major depression were more likely than non-DE/LIS beneficiaries who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

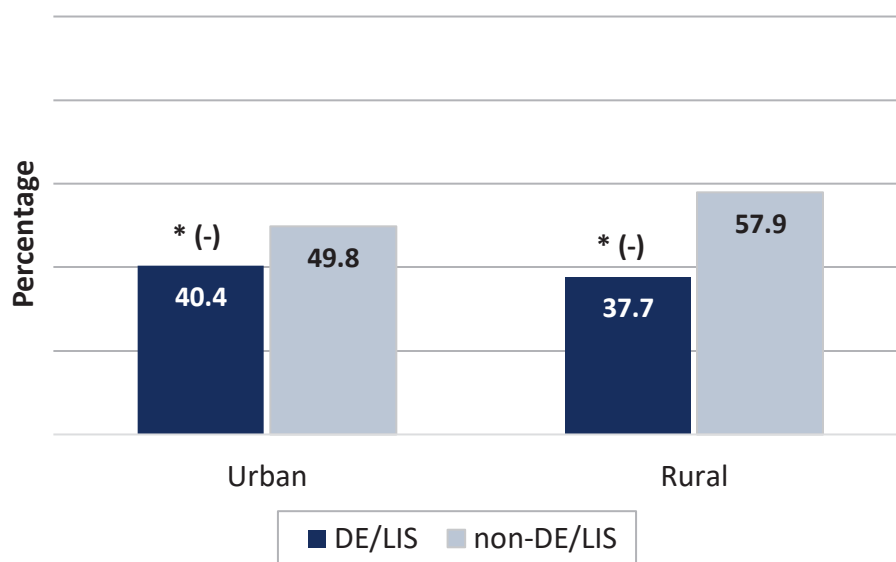
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who were hospitalized for a mental health disorder were less likely than non-DE/LIS beneficiaries who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

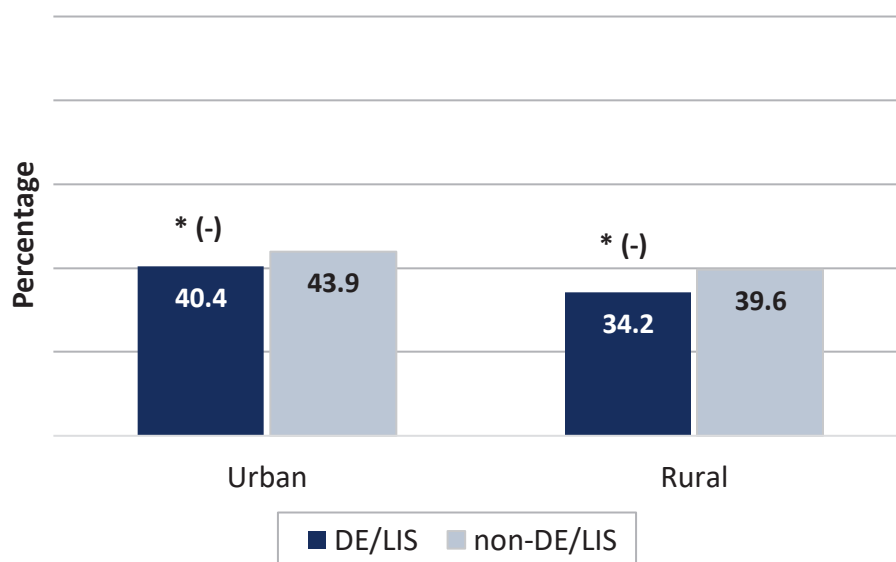
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.



## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who had an ED visit for a mental health disorder were less likely than non-DE/LIS beneficiaries who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

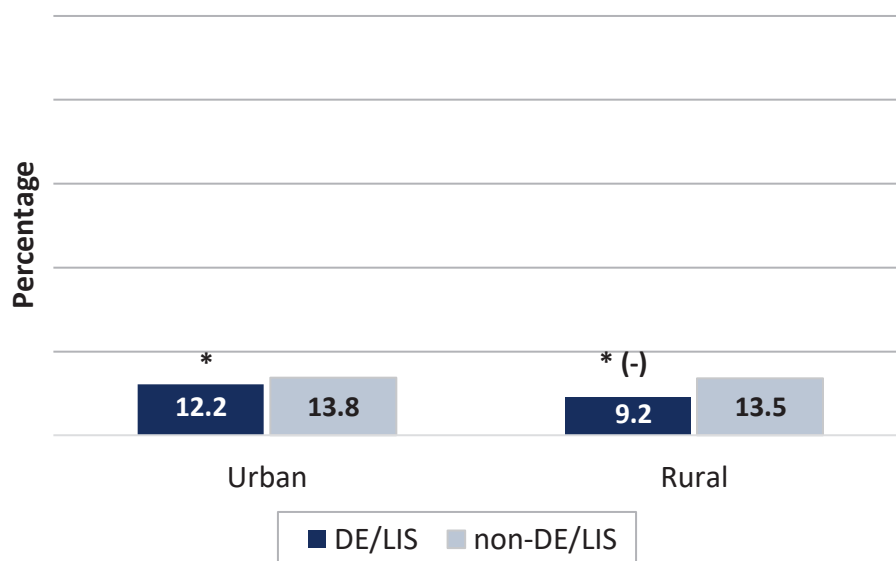
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who had an ED visit for AOD abuse or dependence were less likely than non-DE/LIS beneficiaries who had an ED visit for AOD abuse or dependence to have had a follow-up visit within 30 days of the ED visit. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was less than 3 percentage points. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

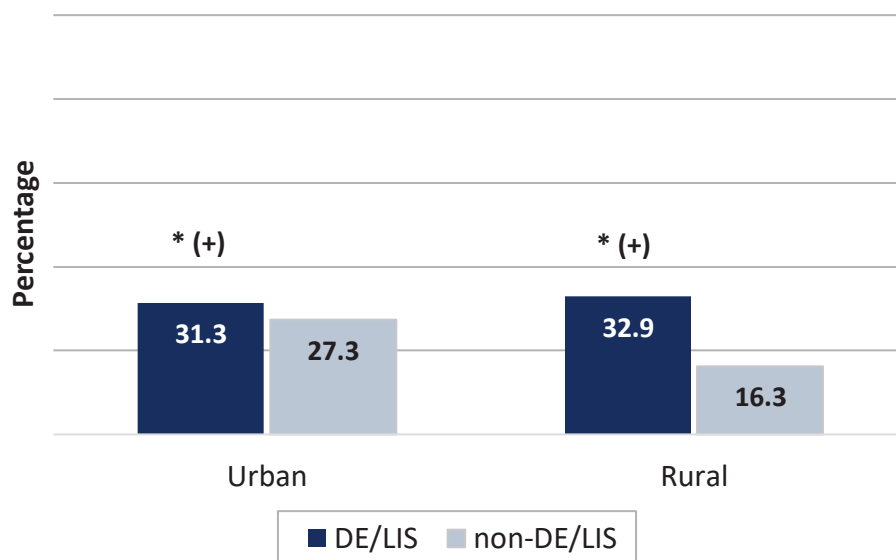
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with a new episode of AOD dependence were more likely than non-DE/LIS beneficiaries with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

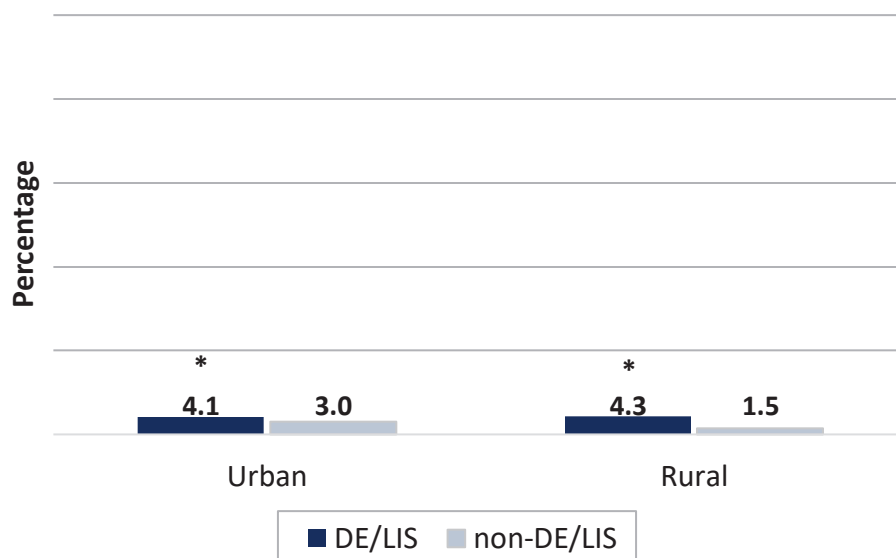
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation might occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol or Other Drug Treatment

Percentage of MA beneficiaries aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries with a new episode of AOD dependence who initiated treatment were more likely than non-DE/LIS beneficiaries with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

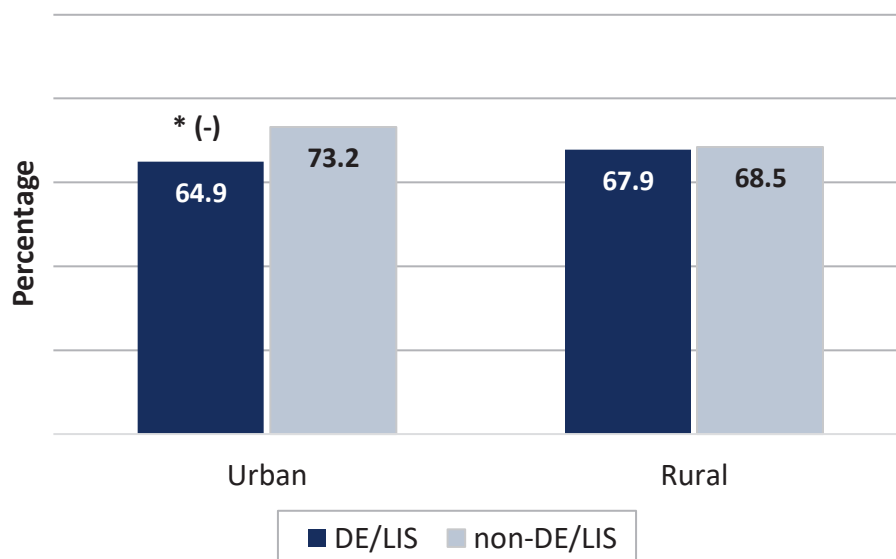
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries who were discharged from an inpatient facility were about as likely as non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had their medications reconciled within 30 days.

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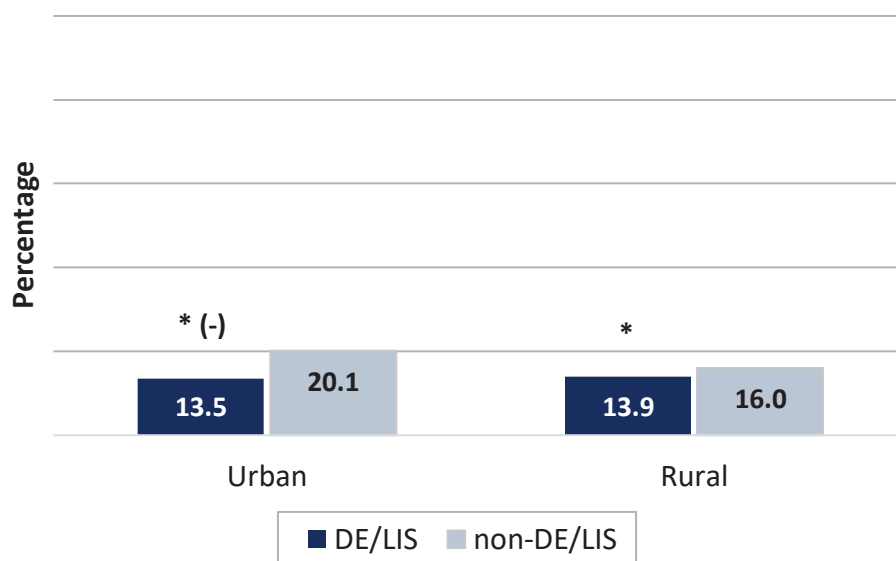
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, the primary or ongoing care providers of DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of non-DE/LIS beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In urban areas, the difference was greater than 3 percentage points. In rural areas, the difference was less than 3 percentage points.

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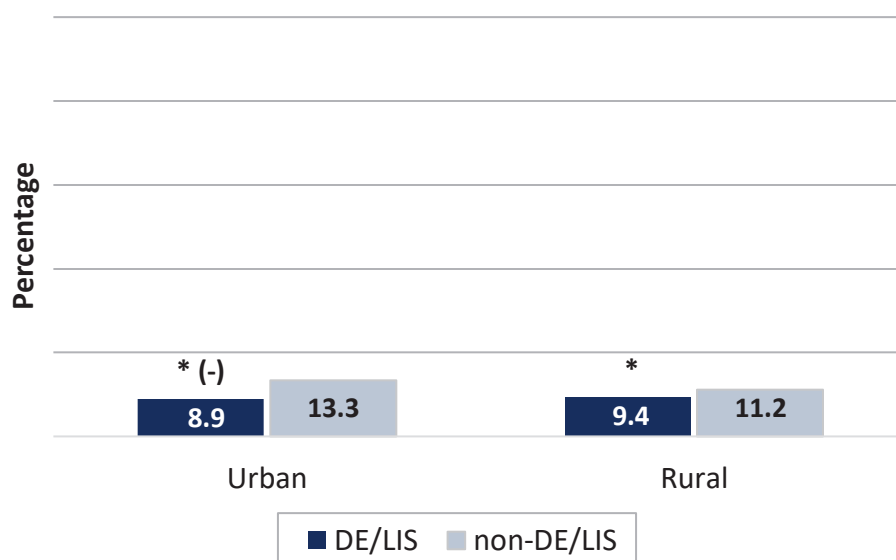
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

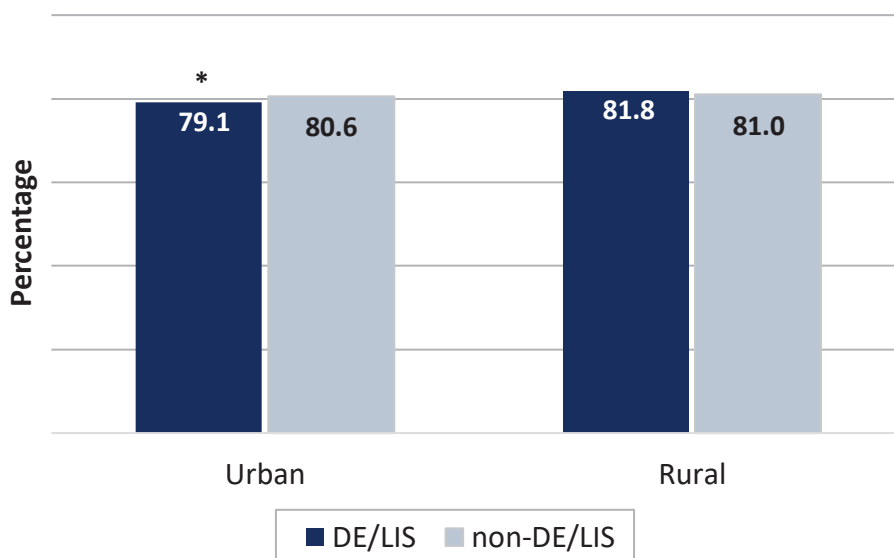
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA beneficiaries aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries who were discharged from an inpatient facility were less likely than non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had an office visit, have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between urban DE/LIS and urban non-DE/LIS beneficiaries was less than 3 percentage points.
- In rural areas, DE/LIS beneficiaries who were discharged from an inpatient facility were about as likely as non-DE/LIS beneficiaries who were discharged from an inpatient facility to have had an office visit, have had a home visit, or to have received telehealth services within 30 days of discharge.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

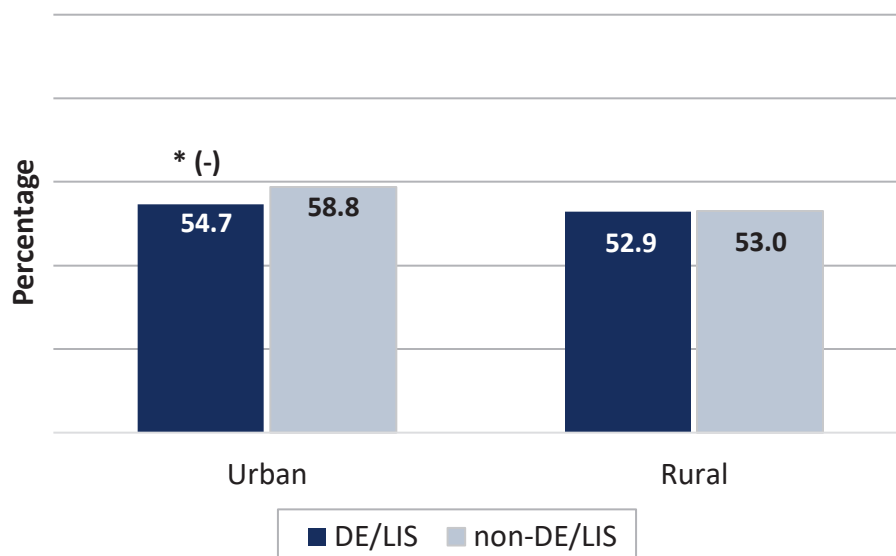
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA beneficiaries aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within 7 days of an ED visit, by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, DE/LIS beneficiaries with multiple high-risk chronic conditions were less likely than non-DE/LIS beneficiaries with multiple high-risk chronic conditions to have received follow-up care within 7 days of an ED visit. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, DE/LIS beneficiaries with multiple high-risk chronic conditions were about as likely as non-DE/LIS beneficiaries with multiple high-risk chronic conditions to have received follow-up care within 7 days of an ED visit.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

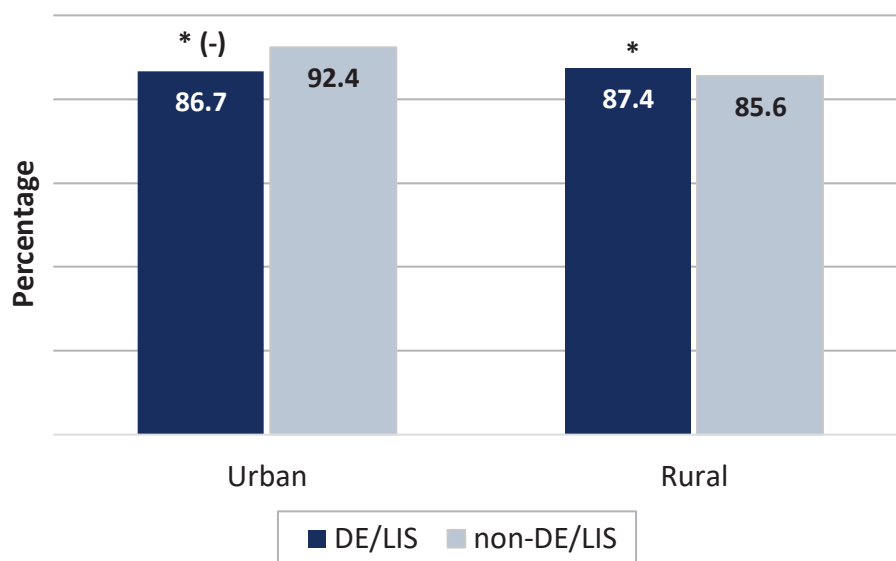
(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, AMI, atrial fibrillation, and stroke and transient ischemic attack.

## Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA beneficiaries aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within race and ethnicity, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with chronic renal failure than for elderly non-DE/LIS beneficiaries with chronic renal failure. The difference between elderly urban DE/LIS beneficiaries and elderly urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, use of potentially harmful medication was avoided more often for elderly DE/LIS beneficiaries with chronic renal failure than for elderly non-DE/LIS beneficiaries with chronic renal failure. The difference between elderly rural DE/LIS beneficiaries and elderly rural non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

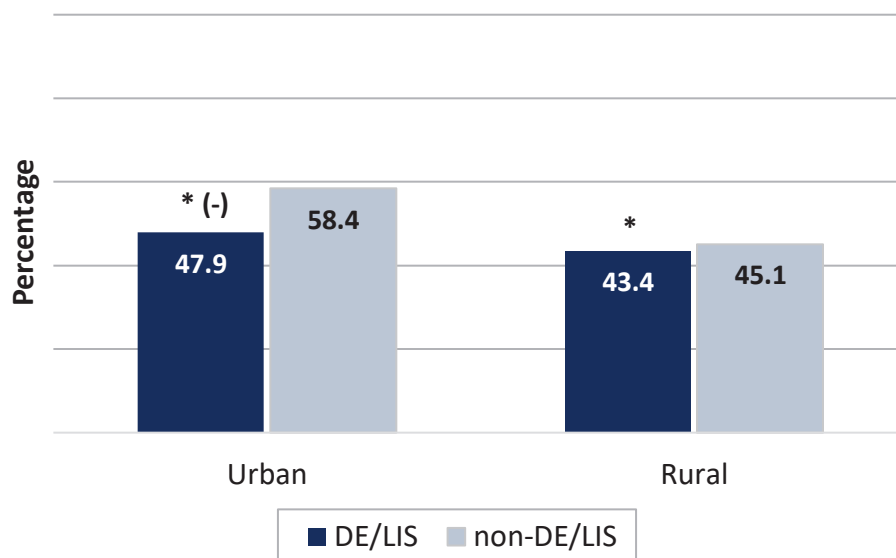
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes cyclooxygenase-2 selective NSAIDs or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA beneficiaries aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with dementia than for elderly non-DE/LIS beneficiaries with dementia. The difference between elderly urban DE/LIS beneficiaries and elderly urban non-DE/LIS beneficiaries was greater than 3 percentage points. The difference between elderly rural DE/LIS beneficiaries and elderly rural non-DE/LIS beneficiaries was less than 3 percentage points.

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

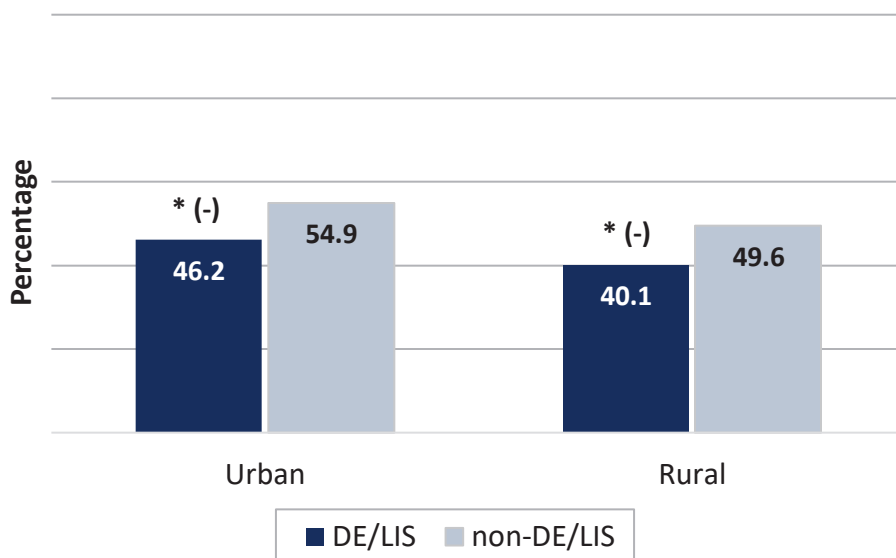
(+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.

(-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA beneficiaries aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, use of potentially harmful medication was avoided less often for elderly DE/LIS beneficiaries with a history of falls than for elderly non-DE/LIS beneficiaries with a history of falls. In each case, the difference between elderly DE/LIS beneficiaries and elderly non-DE/LIS beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

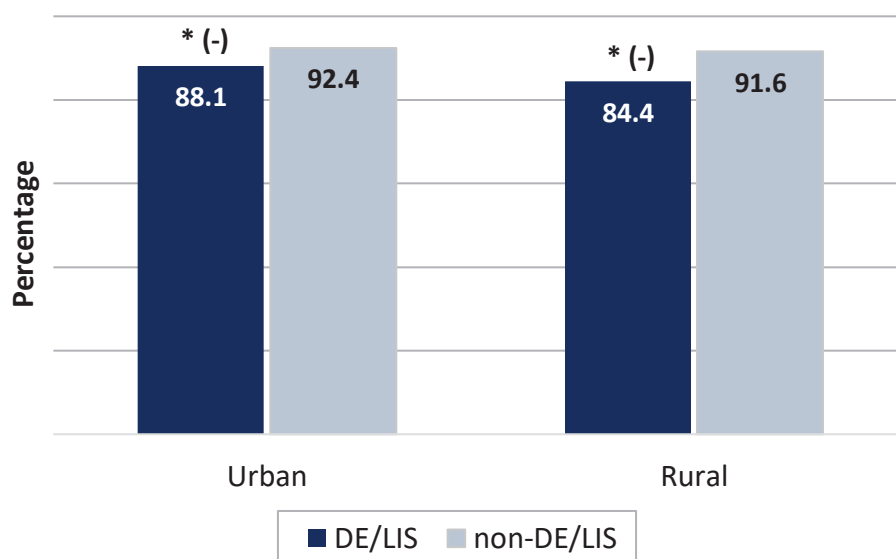
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA beneficiaries aged 65 years and older who were not prescribed a high-risk medication, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, use of high-risk medication was avoided less often for elderly DE/LIS beneficiaries than for elderly non-DE/LIS beneficiaries. In each case, the difference between elderly DE/LIS beneficiaries and elderly non-DE/LIS beneficiaries was greater than 3 percentage points.

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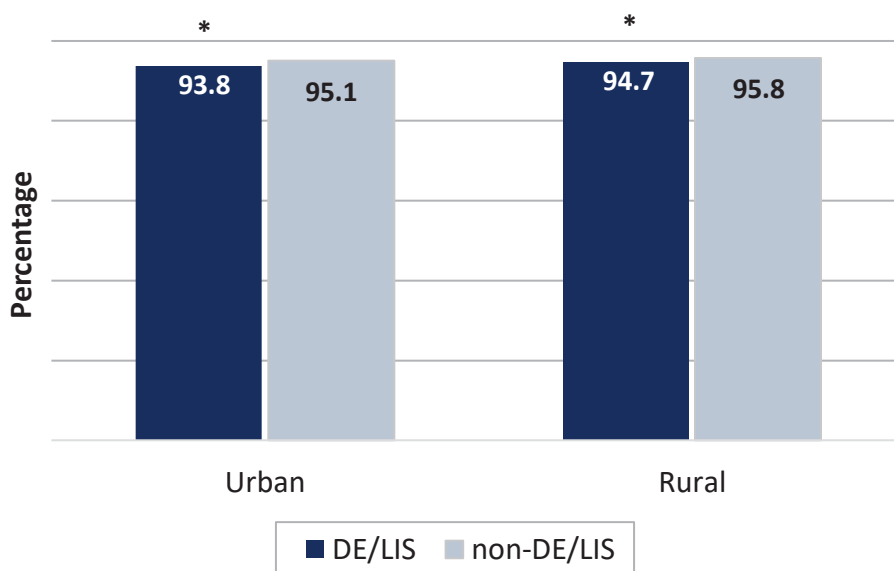
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids at High Dosage

Percentage of MA beneficiaries aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, use of opioids at a high dosage for more than 14 days was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

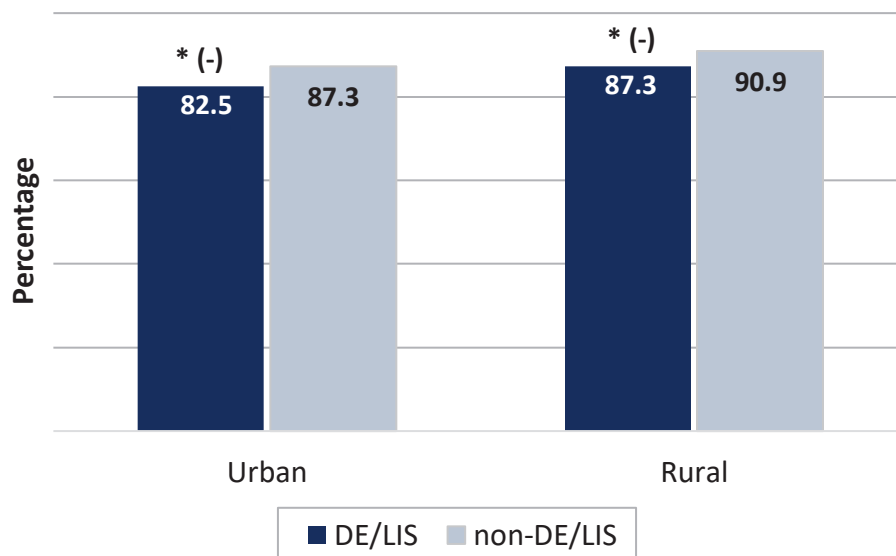
For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

<sup>†</sup> Average morphine equivalent dose > 120 mg.

## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In both urban and rural areas, use of opioids from multiple prescribers was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. In each case, the difference between DE/LIS beneficiaries and non-DE/LIS beneficiaries was greater than 3 percentage points.

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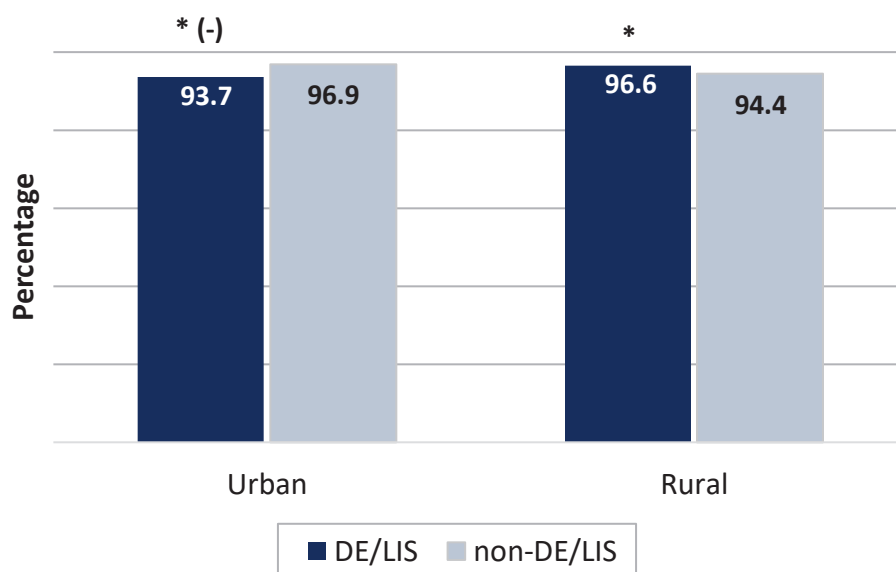
\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA beneficiaries aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

### Disparities

- In urban areas, use of opioids from multiple pharmacies was avoided less often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. The difference between urban DE/LIS beneficiaries and urban non-DE/LIS beneficiaries was greater than 3 percentage points.
- In rural areas, use of opioids from multiple pharmacies was avoided more often for DE/LIS beneficiaries than for non-DE/LIS beneficiaries. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

---

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

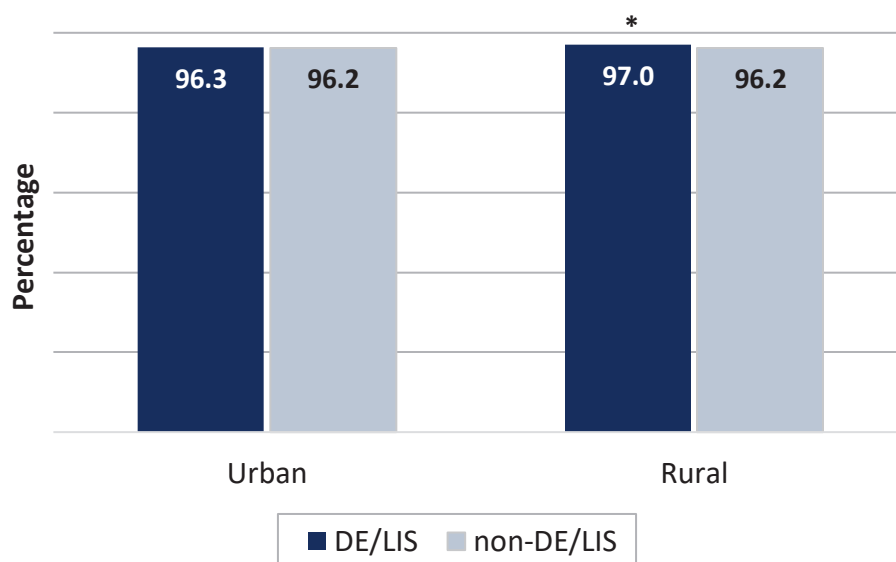
- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.



## Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA beneficiaries aged 65 years and older who had an ambulatory or preventive care visit in the past year, by DE/LIS status within urban and rural areas, Reporting Year 2019



**SOURCE:** Clinical quality data were collected in 2018 from MA plans nationwide.

**NOTES:** DE/LIS beneficiaries are beneficiaries who are dually eligible for Medicare and Medicaid or eligible for an LIS. Non-DE/LIS beneficiaries are neither DE nor eligible for an LIS.

#### Disparities

- In urban areas, DE/LIS beneficiaries were about as likely as non-DE/LIS beneficiaries to have had an ambulatory or preventive care visit.
- In rural areas, DE/LIS beneficiaries were more likely than non-DE/LIS beneficiaries to have had an ambulatory or preventive care visit. The difference between rural DE/LIS beneficiaries and rural non-DE/LIS beneficiaries was less than 3 percentage points.

---

\* Significantly different from the score for non-DE/LIS beneficiaries ( $p < 0.05$ ).

For statistically significant differences between DE/LIS and non-DE/LIS beneficiaries of the same locality, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors DE/LIS beneficiaries.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors non-DE/LIS beneficiaries.

## Appendix: Data Sources and Methods

### *The Healthcare Effectiveness Data and Information Set*

The HEDIS consists of more than 90 measures across six domains of care (National Committee for Quality Assurance [NCQA], undated). These domains are effectiveness of care, access/availability of care, experience of care, utilization and risk-adjusted utilization, relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of NCQA. HEDIS data are gathered via both surveys and medical charts and insurance claims for hospitalizations, medical office visits, and procedures. To avoid pooling data across different versions of a measure, we excluded measures that underwent a recent change in specification. We also excluded measures that were similar to reported measures preferred by CMS or were deemed unsuitable for this application by CMS experts. HEDIS data are available only for MA beneficiaries. To be counted as an MA beneficiary, the general requirement for HEDIS measures is continuous MA enrollment for the measurement year (in this case, 2018), with no more than one gap in enrollment of up to 45 days during each year of continuous enrollment. In Measurement Year 2018, there were 529 MA contracts that supplied the 18,551,524 HEDIS measure records used.

### *Information on DE/LIS Status*

Information on beneficiaries' DE/LIS status came from CMS administrative data. DE/LIS information on the 2019 HEDIS data file (Measurement Year 2018) represents beneficiaries' DE/LIS status in March 2019. For this report, all dual eligible individuals (i.e., those who would be considered full benefit, partial benefit, and QMBs) are included in the DE group.

### *Information on Race and Ethnicity*

Beneficiary race and ethnicity was imputed using a methodology that combines information from administrative data, surname, and residential location (Haas et al., 2019). This methodology—which is called Medicare Bayesian Surname Geocoding (MBISG)—is recommended for estimating racial and ethnic disparities for API, Black, Hispanic, and White beneficiaries (Haas et al., 2019). MBISG 2.1 imputations, which are used for this report, are strongly predictive of self-reported race and ethnicity for these four racial and ethnic groups. MBISG 2.1 is the most accurate measure of race and ethnicity that is available for all Medicare beneficiaries. Predictive accuracy is measured using the C-statistic, also called the Concordance Statistic or Area Under the Curve, a common metric for the performance of classification models. The C-statistic ranges from 0.5 (no predictiveness) to 1.0 (perfect predictiveness). C-statistics for MBISG 2.1 imputations of API, Black, Hispanic, and White race or ethnicity are 0.99, 0.99, 0.96, and 0.96, respectively.

### *Information on Geography*

Beneficiaries were classified as living in a rural or urban area according to the ZIP code of their mailing address and the corresponding U.S. Census Bureau CBSA. CBSAs consist of the county or counties or equivalent entities associated with at least one core urban area plus adjacent counties having a high degree of social and economic integration with the core as measured through commuting ties with the counties that make up the core. Metropolitan statistical areas contain a core urban area of 50,000 or more people. Micropolitan statistical areas contain a core urban area of at least 10,000 but less than 50,000 people. For this report, any beneficiary residing within a metropolitan statistical area was classified as an urban resident; any beneficiary living in a micropolitan statistical area or outside a CBSA was classified as a rural resident.

*Analytic Approach*

HEDIS measure estimates for DE/LIS and non-DE/LIS beneficiaries are from beneficiary-level logistic regression models that predicted whether the care for a patient met the HEDIS criterion (1) or did not (0) from DE/LIS status. Predicted probabilities of racial and ethnic group membership were used as weights to develop HEDIS measure estimates for DE/LIS and non-DE/LIS beneficiaries of different racial and ethnic backgrounds (Elliott et al., 2009). Estimates for DE/LIS and non-DE/LIS beneficiaries residing in urban and rural areas are from logistic regression models that were stratified by urban or rural residence.

Cases with missing data on outcome measures were excluded from the analysis. There were no missing data on predictors (i.e., DE/LIS status, race and ethnicity, and urban or rural residence).

Statistical significance tests were used to compare the model-estimated scores for DE/LIS beneficiaries with the scores for non-DE/LIS beneficiaries. A difference in scores is denoted as statistically significant if there is less than a 5-percent chance that the difference could have resulted because of sampling error alone. Differences that are statistically significant and larger than 3 percentage points are further denoted as practically significant. That is, in the charts that present national data on differences in clinical care by DE/LIS status, differences that are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (using symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013).

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# RACIAL, ETHNIC, & GENDER DISPARITIES IN HEALTH CARE IN MEDICARE ADVANTAGE

APRIL 2021





## Preface

This report presents summary information on the quality of health care received by Medicare Advantage (MA) beneficiaries nationwide (34 percent of all Medicare beneficiaries in 2019). The report highlights (1) racial and ethnic differences in health care experiences and clinical care, (2) gender differences in health care experiences and clinical care, and (3) how racial and ethnic differences in quality of care vary between women and men.

This research was funded by the Centers for Medicare and Medicaid Services and carried out within the Quality Measurement and Improvement Program in RAND Health Care.

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# Contents

Preface.....	iii
Executive Summary .....	vi
Patient Experience and Clinical Care Measures Included in This Report.....	xvi
Abbreviations Used in This Report .....	xviii
Overview and Methods .....	1
Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage .....	6
Disparities in Care: All Patient Experience Measures .....	7
Patient Experience.....	9
Disparities in Care: All Clinical Care Measures.....	16
Clinical Care: Prevention and Screening .....	19
Clinical Care: Respiratory Conditions.....	22
Clinical Care: Cardiovascular Conditions.....	25
Clinical Care: Diabetes .....	29
Clinical Care: Musculoskeletal Conditions .....	36
Clinical Care: Behavioral Health.....	38
Clinical Care: Medication Management and Care Coordination .....	45
Clinical Care: Overuse/Appropriateness.....	50
Clinical Care: Access/Availability of Care .....	57
Section II: Gender Disparities in Health Care in Medicare Advantage.....	58
Disparities in Care: All Patient Experience and Clinical Care Measures.....	59
Patient Experience.....	60
Disparities in Care: All Clinical Care Measures.....	67
Clinical Care: Prevention and Screening .....	69
Clinical Care: Respiratory Conditions.....	71
Clinical Care: Cardiovascular Conditions.....	74
Clinical Care: Diabetes .....	76
Clinical Care: Musculoskeletal Conditions .....	83
Clinical Care: Behavioral Health.....	84
Clinical Care: Medication Management and Care Coordination .....	91
Clinical Care: Overuse/Appropriateness.....	96
Clinical Care: Access/Availability of Care .....	103
Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage.....	104

Disparities in Care: All Patient Experience Measures .....	105
Patient Experience .....	107
Disparities in Care: All Clinical Care Measures.....	114
Clinical Care: Prevention and Screening .....	118
Clinical Care: Respiratory Conditions.....	120
Clinical Care: Cardiovascular Conditions.....	123
Clinical Care: Diabetes .....	127
Clinical Care: Musculoskeletal Conditions .....	134
Clinical Care: Behavioral Health.....	135
Clinical Care: Medication Management and Care Coordination .....	144
Clinical Care: Overuse/Appropriateness.....	149
Clinical Care: Access/Availability of Care .....	156
Appendix: Data Sources and Methods .....	157
References .....	160

# EXECUTIVE SUMMARY

Racial, Ethnic, and Gender Disparities in  
Health Care in Medicare Advantage



## ***Introduction***

This report presents summary information on the quality of health care received by Medicare Advantage (MA) beneficiaries nationwide (34 percent of all Medicare beneficiaries in 2019). The report highlights (1) racial and ethnic differences in health care experiences and clinical care, (2) gender differences in health care experiences and clinical care, and (3) how racial and ethnic differences in quality of care vary between women and men.

The report is based on an analysis of two sources of information. The first source is the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey, which is conducted annually by the Centers for Medicare & Medicaid Services (CMS) and focuses on the health care experiences (e.g., ease of getting needed care, how well providers communicate, getting needed prescription drugs) of Medicare beneficiaries across the nation. The second source of information is the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS is composed of information collected from medical records and administrative data on the clinical quality of care that Medicare beneficiaries receive for a variety of medical issues, including diabetes, cardiovascular disease, and chronic lung disease. A comprehensive list of the seven patient experience and 39 clinical care measures included in this report is provided in the section titled “Patient Experience and Clinical Care Measures Included in This Report.” Scores on CAHPS measures are case mix–adjusted, as described in the appendix. HEDIS measures are not case mix–adjusted.

The report uses data collected in 2019. The CAHPS data pertain to care experiences reported on the 2019 Medicare CAHPS survey, which was fielded from March to May 2019. Beneficiaries were asked about care received in the six months prior to the survey. The 2019 HEDIS data pertain to care received from January to December 2018.

## ***Distribution of Race, Ethnicity, and Gender Among Medicare Advantage Beneficiaries***

The 2019 MA population included 69.5 percent White beneficiaries, 12.8 percent Hispanic beneficiaries, 11.0 percent Black beneficiaries, 4.0 percent Asian or Pacific Islander (API) beneficiaries, 2.3 percent multiracial beneficiaries (the multiracial group is not included in this report because it is a heterogeneous and therefore difficult-to-interpret population), and 0.4 percent American Indian or Alaska Native (AI/AN) beneficiaries. The 2019 MA population also included 56.5 percent female beneficiaries and 43.5 percent male beneficiaries.

## ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

With just one exception, racial and ethnic minority beneficiaries reported experiences with care that were either worse than or similar to the experiences reported by White beneficiaries (see Figure 1). Compared with White beneficiaries, AI/AN beneficiaries and Black beneficiaries reported worse experiences on one measure and similar experiences on six measures.<sup>1</sup> API beneficiaries reported worse experiences than White beneficiaries on six measures and better experiences on one measure. Hispanic beneficiaries reported worse experiences than White beneficiaries on three measures and similar experiences on four measures.

---

<sup>1</sup> Here, we use *worse* and *better* to characterize differences that are statistically significant and exceed a magnitude threshold, as described in the appendix. We use *similar* to characterize differences that are not statistically significant, fall below a magnitude threshold, or both.

Racial and ethnic differences were more variable for the 39 clinical care measures presented in this report than for the patient experience measures (see Figure 2). API beneficiaries had worse results than White beneficiaries on six clinical care measures, similar results on 23 measures, and better results on 11 measures. Black beneficiaries had worse results than White beneficiaries on 14 clinical care measures, similar results on 20 measures, and better results on five measures. Hispanic beneficiaries had worse results than White beneficiaries on 16 clinical care measures, similar results on 17 measures, and better results on six measures.<sup>2</sup>

### ***Gender Disparities in Health Care in Medicare Advantage***

Women and men reported similar experiences with care for all measures of patient experience (see Figure 3). Women and men had similar results on 26 of 35 clinical care measures.<sup>3</sup> For the nine remaining measures, women had worse results than men on four measures, and they had better results on five measures (see Figure 4).

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Patterns of racial and ethnic differences (compared with White beneficiaries) in patient experience varied between women and men, compared with the differences that were observed among both groups combined (see Figure 5). AI/AN men reported worse experiences with getting needed prescription drugs than did White men, whereas AI/AN women and White women reported similar experiences. For all other measures, AI/AN beneficiaries reported experiences that were similar to those reported by White beneficiaries, regardless of gender. Among both women and men, API beneficiaries reported worse experiences than White beneficiaries with getting needed care, getting appointments and care quickly, customer service, doctor communication, care coordination, and getting needed patient drugs, and they also had higher rates of vaccination for the flu than White beneficiaries. Among both women and men, Black beneficiaries had lower rates of vaccination for the flu than White beneficiaries. For all other measures, Black beneficiaries reported experiences that were similar to those reported by White beneficiaries, regardless of gender. Among both men and women, Hispanic beneficiaries reported worse experiences with getting appointments and care quickly than White beneficiaries. Among men only, Hispanic beneficiaries reported worse experiences with getting needed care and care coordination than White beneficiaries. For all other measures, Hispanic beneficiaries reported experiences that were similar to those reported by White beneficiaries, regardless of gender.

Patterns of racial and ethnic differences (compared with White beneficiaries) in clinical care among women and men largely parallel the differences observed among both groups combined (see Figure 6). API women had worse results than White women on three measures; API men had worse results than White men on those same three measures plus two additional measures. API women had better results than White women on eight measures, whereas API men had better results than White men on ten measures; of those eight or ten measures, six were the same for women and men. Black women had worse results than White women on 14 measures; Black men had worse results than White men on 11

---

<sup>2</sup> For reporting HEDIS data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from CMS administrative data, surname, and residential location. Estimates of membership in the AI/AN group are less accurate than for other racial and ethnic groups; thus, this report does not show scores for AI/AN beneficiaries on the clinical care measures.

<sup>3</sup> Two clinical care measures, Breast Cancer Screening and Osteoporosis Management in Women Who Had a Fracture, pertained only to women and so were not eligible for stratified reporting by gender. Two other measures, Statin Use for Cardiovascular Disease and Medication Adherence for Cardiovascular Disease—Statins, were defined differently for men and women and also were not eligible for stratified reporting by gender.

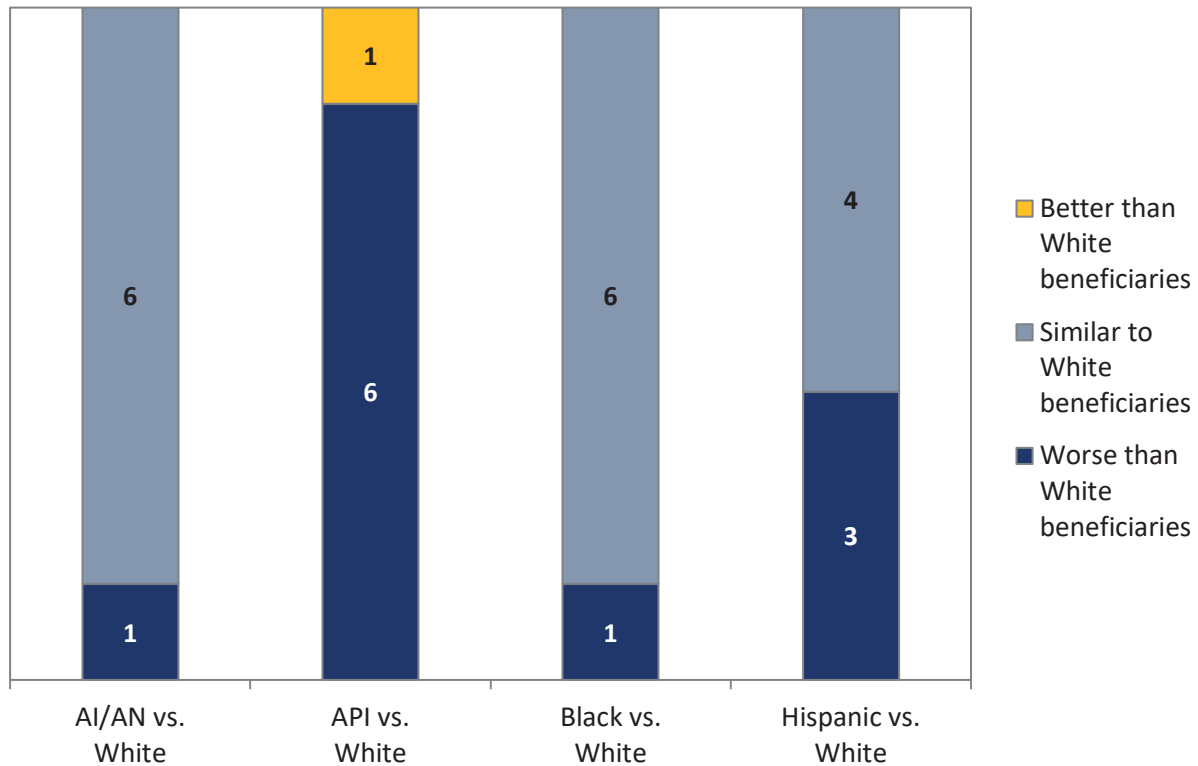
of those 14 measures plus an additional five measures. Black women had better results than White women on two measures; Black men had better results than White men on those same two measures plus two additional measures. Hispanic women had worse results than White women on 15 measures; Hispanic men had worse results than White men on 14 of those 15 measures plus an additional two measures. Hispanic women had better results than White women on seven measures, whereas Hispanic men had better results than White men on five measures; of those five or seven measures, four were the same for women and men.

### ***Conclusion***

This report focuses on racial, ethnic, and gender differences in patient experience and clinical quality of care that exist at the national level. Although this analysis generally revealed few gender differences in care, it did reveal patterns in which (1) Black and Hispanic beneficiaries had worse results than White beneficiaries on a large portion of the clinical care measures examined and (2) API beneficiaries reported worse patient experiences than White beneficiaries on a majority of the measures of patient experience. The results presented in this report suggest that quality improvement efforts should focus on enhancing clinical care for Black and Hispanic beneficiaries and investigating the drivers of differences between the reported experiences of API beneficiaries compared with those of White beneficiaries (Mayer et al., 2016). This information might be of interest to MA organizations and Medicare Part D sponsors as they consider strategies to improve the quality of care received by racial and ethnic minorities and to reduce disparities.

## Figure 1. Racial and Ethnic Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by White beneficiaries in 2019

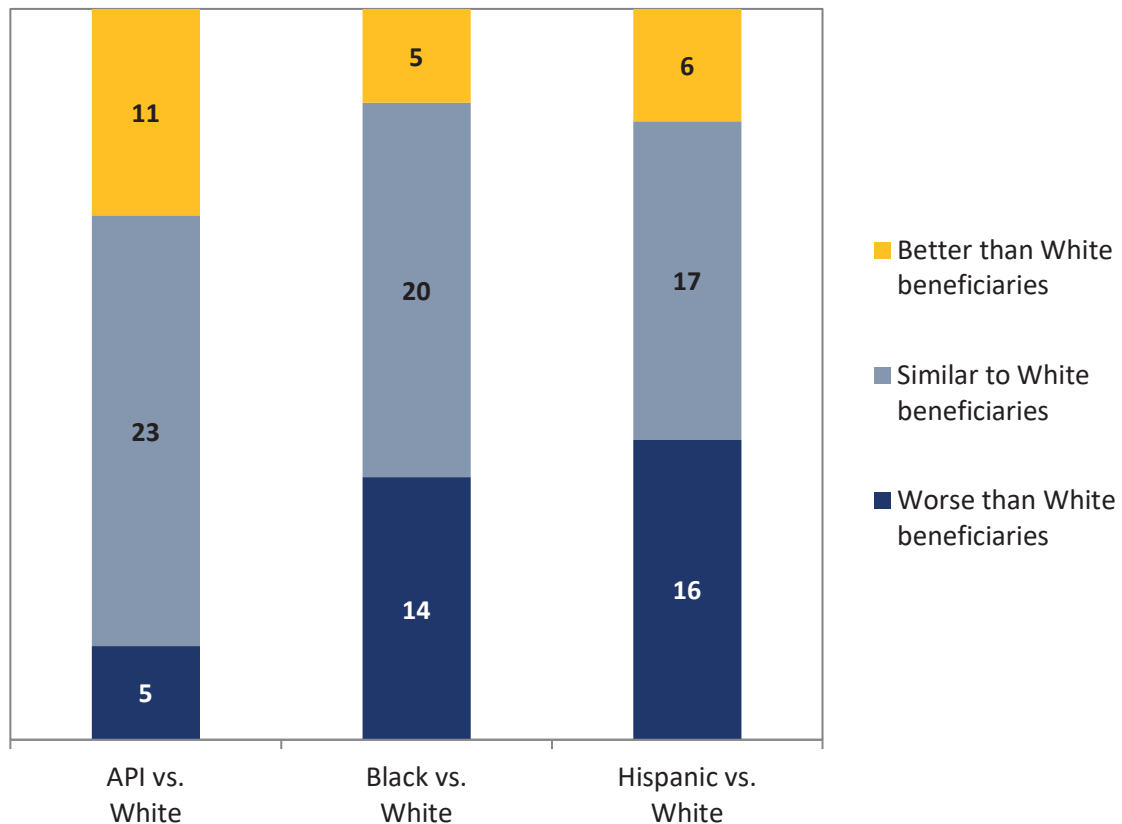


**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

## Figure 2. Racial and Ethnic Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 39) for which members of selected groups had results that were worse than, similar to, or better than results for White beneficiaries in 2019



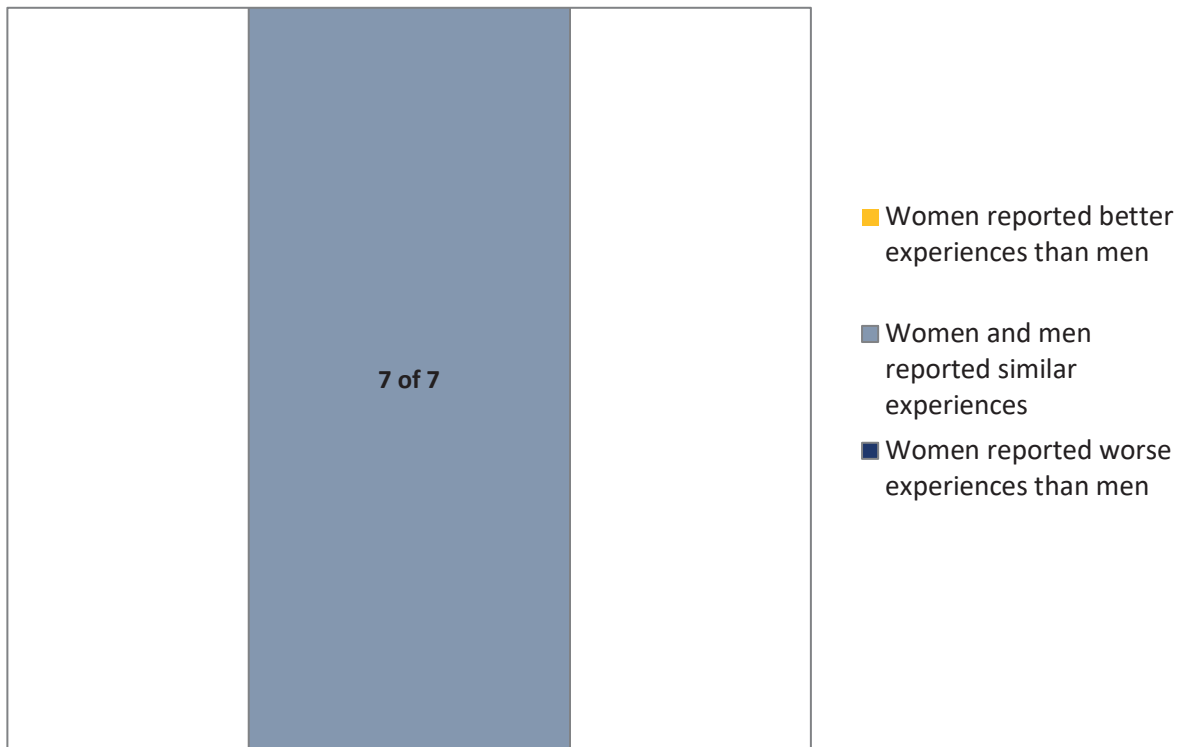
**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. For reporting clinical care (HEDIS) data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from CMS administrative data, surname, and residential location. Estimates of membership in the AI/AN group are less accurate than for other racial and ethnic groups; thus, this report does not show scores for AI/AN beneficiaries on the clinical care measures. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.



### Figure 3. Gender Disparities in Care: All Patient Experience Measures

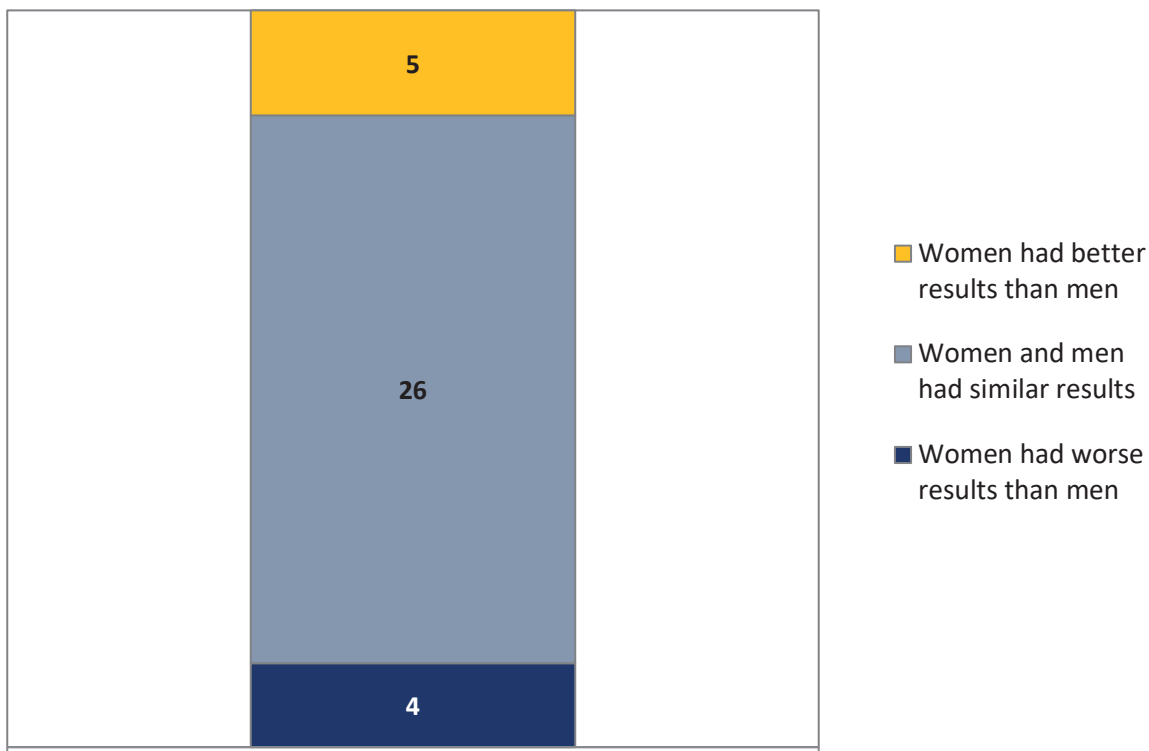
Number of patient experience measures (out of 7) for which women reported experiences that were worse than, similar to, or better than the experiences reported by men in 2019



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

### Figure 4. Gender Disparities in Care: All Clinical Care Measures

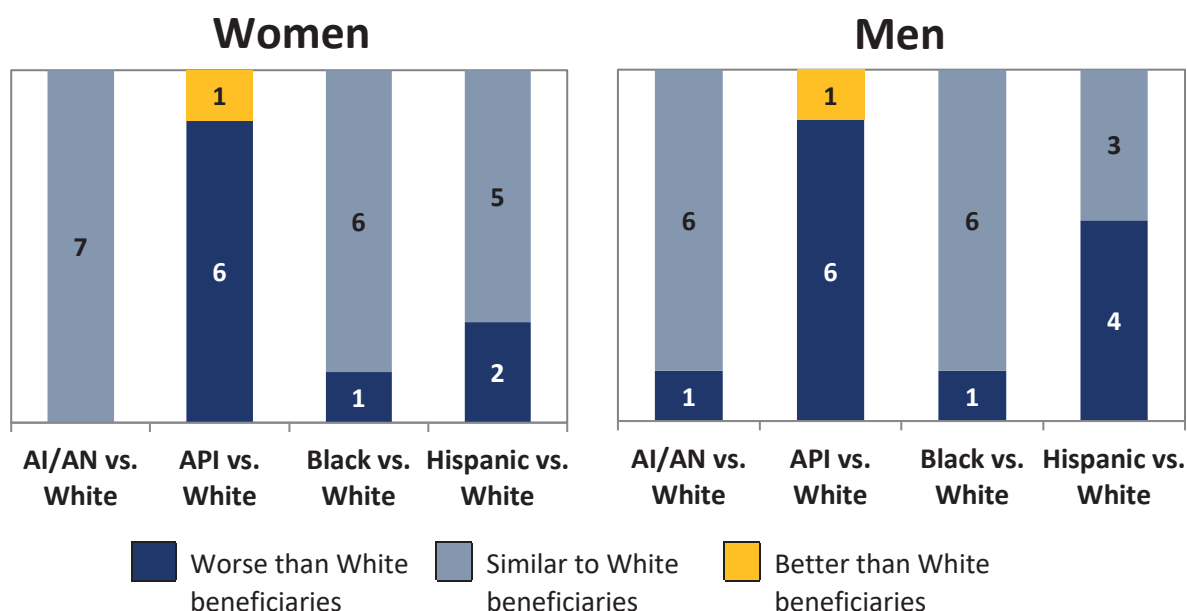
Number of clinical care measures (out of 35) for which women had results that were worse than, similar to, or better than results for men in 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

## Figure 5. Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures

Number of patient experience measures (out of 7) for which women or men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women or men in 2019

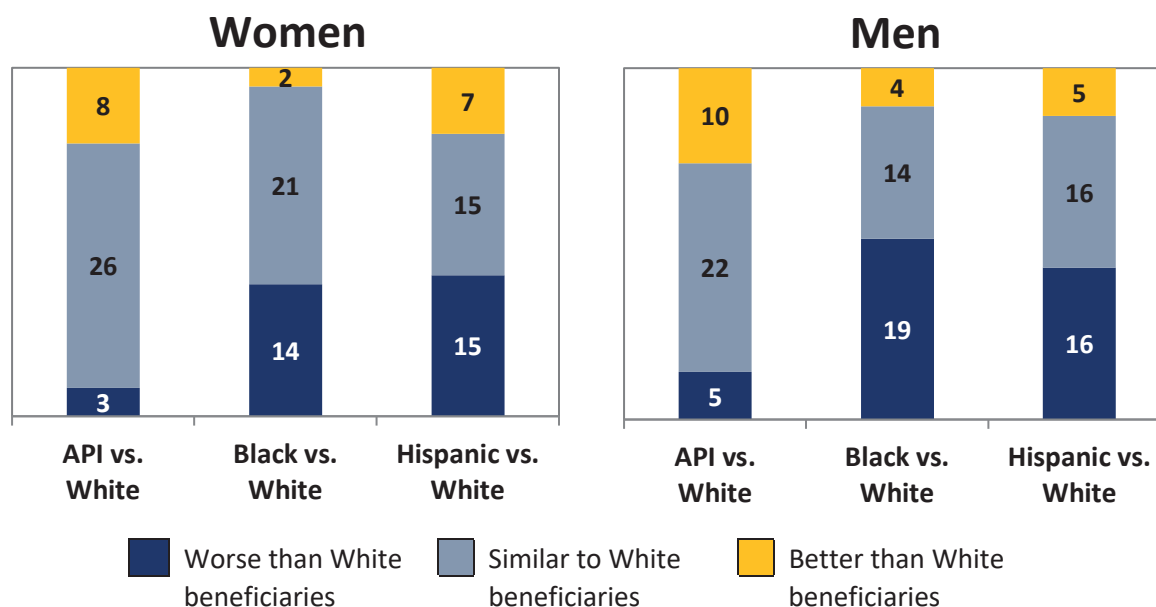


**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

## Figure 6. Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures

Number of clinical care measures (out of 37) for which women or men of selected racial and ethnic minority groups had results that were worse than, similar to, or better than results for White women or men in 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. For reporting clinical care (HEDIS) data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from CMS administrative data, surname, and residential location. Estimates of membership in the AI/AN group are less accurate than for other racial and ethnic groups; thus, this report does not show scores for AI/AN beneficiaries on the clinical care measures. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

# Patient Experience and Clinical Care Measures Included in This Report

## **Patient Experience Measures**

- Getting Needed Care
- Getting Appointments and Care Quickly
- Customer Service
- Doctors Who Communicate Well
- Care Coordination
- Getting Needed Prescription Drugs
- Annual Flu Vaccine

## **Clinical Care Measures**

### *Prevention and Screening*

- Adult Body Mass Index (BMI) Assessment
- Breast Cancer Screening\*
- Colorectal Cancer Screening

### *Respiratory Conditions*

- Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)
- Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid
- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

### *Cardiovascular Conditions*

- Controlling High Blood Pressure
- Continuous Beta-Blocker Treatment After a Heart Attack
- Statin Use in Patients with Cardiovascular Disease<sup>+</sup>
- Medication Adherence for Cardiovascular Disease—Statins<sup>+</sup>

### *Diabetes*

- Diabetes Care—Blood Sugar Testing
- Diabetes Care—Eye Exam
- Diabetes Care—Kidney Disease Monitoring
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Statin Use in Patients with Diabetes
- Medication Adherence for Diabetes—Statins

### *Musculoskeletal Conditions*

- Rheumatoid Arthritis Management
- Osteoporosis Management in Women Who Had a Fracture\*

*Behavioral Health*

- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-Up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)
- Follow-Up After ED Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)
- Initiation of Alcohol and Other Drug Dependence Treatment
- Engagement of Alcohol and Other Drug Dependence Treatment

*Medication Management and Care Coordination*

- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Transitions of Care—Patient Engagement After Inpatient Discharge
- Follow-Up After ED Visit for People with High-Risk Multiple Chronic Conditions

*Overuse/Appropriate Use*

- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids at High Dosage
- Avoiding Use of Opioids from Multiple Prescribers
- Avoiding Use of Opioids from Multiple Pharmacies

*Access/Availability of Care*

- Older Adults' Access to Preventive/Ambulatory Services

\* These measures are specific to women and are thus not included in the set of comparisons by gender.

† These measures are defined differently for men and women and thus are not included in the set of comparisons by gender. They are, however, included in the set of comparisons by race and ethnicity within gender.

## Abbreviations Used in This Report

AI/AN	American Indian or Alaska Native
AMI	acute myocardial infarction
AOD	alcohol or other drug
API	Asian or Pacific Islander
ASCVD	atherosclerotic cardiovascular disease
BMI	body mass index
CAHPS	Consumer Assessment of Healthcare Providers and Systems
CMS	Centers for Medicare and Medicaid Services
COPD	chronic obstructive pulmonary disease
DMARD	disease-modifying antirheumatic drug
ED	emergency department
FFS	fee-for-service
HEDIS	Healthcare Effectiveness Data and Information Set
MA	Medicare Advantage
NSAID	nonsteroidal anti-inflammatory drug
PDP	prescription drug plan

# OVERVIEW AND METHODS





## Overview

This report presents summary information on the quality of health care received in 2019 by Medicare beneficiaries enrolled in Medicare Advantage (MA) plans nationwide. Two types of quality of care data are presented: (1) measures of patient experience, which describe how well the care that patients receive meets their needs for such things as timely appointments, respectful care, clear communication, and access to information; and (2) measures of clinical care, which describe the extent to which patients receive appropriate screening and treatment for specific health conditions. In 2019, 34 percent of all Medicare beneficiaries were enrolled in MA.

The data presented in this report were collected in 2019. Previous versions of this report presented information on the quality of health care received by Medicare beneficiaries enrolled in MA plans nationwide based on data collected in 2016, 2017, and 2018.

The Institute of Medicine (now the National Academy of Medicine) has identified the equitable delivery of care as a hallmark of quality (Institute of Medicine, 2001). Assessing equitability in the delivery of care requires making comparisons of quality by personal characteristics of patients, such as gender, race, and ethnicity. Three sets of such comparisons are presented in this report. In the first set, quality of care for racial and ethnic minority beneficiaries is compared with quality of care for White beneficiaries. In the second, quality of care for women is compared with quality of care for men. In the third, quality of care for racial and ethnic minority beneficiaries is compared with quality of care for White beneficiaries of the same gender. The choice of reference groups was based on concerns raised by the Institute of Medicine about whether racial and ethnic minority patients receive care that is as good as care for White patients and whether care for women is as consistently good as care for men (Institute of Medicine, 2001). As in the 2018–2020 reports, which are available at Centers for Medicare & Medicaid Services, 2020a, the three sets of comparisons just described—which might be of interest to Medicare beneficiaries, MA organizations, Medicare Part D sponsors, and federal policymakers—are being presented in a single report to provide a more-comprehensive understanding of the ways in which care differs by race and ethnicity, gender, and the intersection of these two characteristics. The focus of this report is on differences that exist at the national level. Interested readers can find information about health care quality for specific Medicare plans at [Medicare.gov](https://www.medicare.gov) (Medicare.gov, undated) and information about racial and ethnic differences in health care quality within Medicare plans on the [Stratified Reporting page at CMS.gov](#) (Centers for Medicare & Medicaid Services, 2020a).

## Data Sources

In all, this report provides data regarding seven patient experience measures and 39 clinical care measures. The set of patient experience measures presented in this report is the same as the set reported on in the 2018–2020 reports (reporting 2016–2018 data). To minimize redundancy among the clinical care measures, five measures that were included in the 2020 report are excluded from this report. The five excluded measures are Follow-Up After Hospital Stay for Mental Illness (within seven days of discharge), Follow-Up After Emergency Department (ED) Visit for Mental Illness (within seven days of discharge), Follow-Up After ED Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within seven days of discharge), Transitions of Care: Medication Reconciliation After Hospital Discharge, and Avoiding Use of Opioids from Multiple Prescribers and Pharmacies.<sup>4</sup>

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<sup>4</sup> This report presents data on (1) versions of each of the first three measures that pertain to follow-up received within 30 days of discharge, (2) a separate but similar measure on medication reconciliation after hospital

Patient experience data were collected from a national survey of Medicare beneficiaries, known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this report are from the 2019 Medicare CAHPS survey (detailed information about this survey can be found on the [MA and Prescription Drug Plan CAHPS page at CMS.gov](#), Centers for Medicare & Medicaid Services, 2020b). The 2019 Medicare CAHPS survey was fielded from March to May 2019. In the survey, beneficiaries were asked about care received in the six months prior to the survey. Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get the prescription drugs they need.

Clinical care data were gathered through medical records and insurance claims or encounter data for hospitalizations, medical office visits, and procedures. These data, which are collected each year from MA plans nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS; detailed information about these data can be found on the [National Committee for Quality Assurance's HEDIS webpage](#), National Committee for Quality Assurance, undated a). In this report, clinical care measures are grouped into nine categories: prevention and screening, respiratory conditions, cardiovascular conditions, diabetes, musculoskeletal conditions, behavioral health, medication management and care coordination, overuse and appropriateness, and access and availability of care. Although the annual flu vaccination measure is a HEDIS measure, it is collected via the Medicare CAHPS survey and so is included with the patient experience measures in this report. Two of the clinical care measures presented in this report, one of which pertains to breast cancer screening and the other to management of osteoporosis, are specific to women. Thus, the set of comparisons by gender and the set of comparisons by race and ethnicity within gender exclude these two measures. Two other clinical care measures, both dealing with statin therapy for patients with cardiovascular disease, are defined differently for men and women and thus are excluded from the set of comparisons by gender. The HEDIS data reported here were collected in 2019. The 2019 HEDIS data pertain to care received from January to December 2018. Whereas all patient experience measures are applicable to beneficiaries aged 18 years and older, certain HEDIS measures apply to beneficiaries in a more-limited age range, as noted throughout the report.

Table 1 shows the distribution of race, ethnicity, and gender in the 2019 MA population compared with the Medicare fee-for-service (FFS) population. Outside the parentheses are column percentages. Inside the parentheses are row percentages. In general, racial and ethnic minority beneficiaries were more likely to be enrolled in MA than were White beneficiaries, and women were more likely to be enrolled in MA than were men.

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discharge, and (3) a pair of measures that pertain separately to avoiding use of opioids from multiple prescribers and avoiding use of opioids from multiple pharmacies.

Table 1. Distribution of the 2019 Medicare Advantage Population

Beneficiary Characteristic	Medicare Advantage, 2019 (%)	Medicare Fee-for-Service, 2019 (%)
Race or ethnicity		
American Indian or Alaska Native (AI/AN)	0.4 (22.3)	0.7 (77.7)
Asian or Pacific Islander (API)	4.0 (37.8)	3.6 (62.2)
Black	11.0 (40.8)	8.6 (59.3)
Hispanic	12.8 (53.0)	6.1 (47.0)
White	69.5 (32.0)	79.1 (68.0)
Multiracial*	2.3 (37.8)	2.0 (62.2)
Gender		
Female	56.5 (37.1)	52.2 (62.9)
Male	43.5 (33.2)	47.8 (66.8)
* The multiracial group is not included in this report because it is a heterogeneous and therefore difficult-to-interpret group.		

For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience measures are provided for all racial and ethnic groups except for those who were multiracial. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care measures are provided for the same groups except for AI/AN beneficiaries because the clinical care data lack information that allows us to reliably determine whether a beneficiary is in this group.

### Reportability of Information

Sample size criteria were used to determine whether a score on a measure was reportable for a particular group. Scores based on 400 or more observations were considered sufficiently precise for reporting. Scores based on more than 99 but fewer than 400 observations were considered low in precision and were flagged as such. In this report, flagged scores—which should be regarded as tentative information—are shown unbolded with a superscript symbol appended; the symbol links to a note at the bottom of the chart that cautions about the precision of the score. Scores based on 99 or fewer observations are suppressed (i.e., not reported). When a score is suppressed for a particular group, a note appears at the bottom of the relevant chart saying that there were not enough data from that group to make a racial and ethnic comparison on the measure.

### Racial and Ethnic Disparities in Health Care in Medicare Advantage

Section I of the report begins with a stacked bar chart showing the number of patient experience measures (out of 7) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by White beneficiaries.<sup>5</sup> Following this stacked bar chart are separate, unstacked bar charts for each patient experience measure. These charts show the average score for each racial and ethnic group on a 0–100 scale. The average score represents the percentage of the best possible score for a given demographic group for that measure. For example, consider a measure for which the best possible score is 4 and the worst possible score is 1. If a

<sup>5</sup> In the stacked bar charts presented in this report, *similar* is used to characterize differences that are not statistically significant, fall below a magnitude threshold of 3 points, or both, as described in the appendix. *Worse* and *better* are used to characterize differences that are statistically significant and exceed the magnitude threshold.

given group's score on that measure is 3.5, then that group's score on a 0–100 scale is  $([3.5-1]/[4-1])*100 = 83.3$ . In the unstacked bar charts, differences that are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013). After the patient experience measures, Section I presents a stacked bar chart showing the number of clinical care measures (out of 39) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by White beneficiaries. Following this stacked bar chart are separate, unstacked bar charts for each clinical care measure that show the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure (e.g., a test or treatment).

### ***Gender Disparities in Health Care in Medicare Advantage***

Section II of the report begins with a stacked bar chart showing the number of patient experience measures (out of 7) for which women reported experiences of care that were worse than, similar to, or better than the experiences reported by men. Following this stacked bar chart are separate, unstacked bar charts for each patient experience measure. After the patient experience measures, Section II presents a stacked bar chart showing the number of clinical care measures (out of 35) for which women experienced care that was worse than, similar to, or better than the care experienced by men. Following this stacked bar chart are separate, unstacked bar charts for each clinical care measure.

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Section III of the report begins with a pair of stacked bar charts that show, separately for women and men, the number of patient experience measures (out of 7) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by White beneficiaries. Following these stacked bar charts are separate, unstacked bar charts for each patient experience measure. These charts show, separately for men and women, the average score for each racial and ethnic group on a 0–100 scale. After the patient experience measures, Section III presents a pair of stacked bar charts that show, separately for men and women, the number of clinical care measures (out of 37) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by White beneficiaries. Following these stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for men and women, the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure.

For detailed information on data sources and analytic methods, see the appendix.

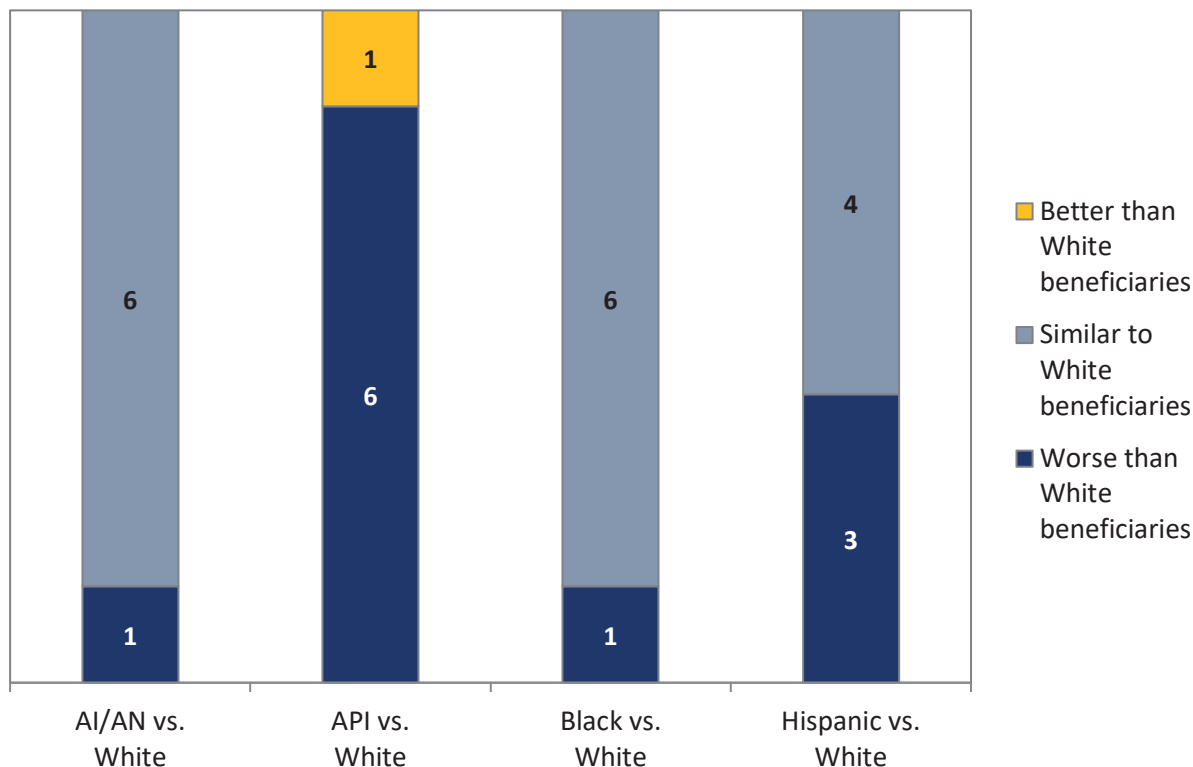
# SECTION I:

## Racial and Ethnic Disparities in Health Care in Medicare Advantage



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by White beneficiaries in 2019



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

The relative difference between a selected group and White beneficiaries is used to assess disparities.

- **Better** = Population received better care than White beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and White beneficiaries received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than White beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor White beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**AI/AN beneficiaries had worse results than White beneficiaries**

- Getting needed prescription drugs

**API beneficiaries had worse results than White beneficiaries**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API beneficiaries had better results than White beneficiaries**

- Annual flu vaccine

**Black beneficiaries had worse results than White beneficiaries**

- Annual flu vaccine

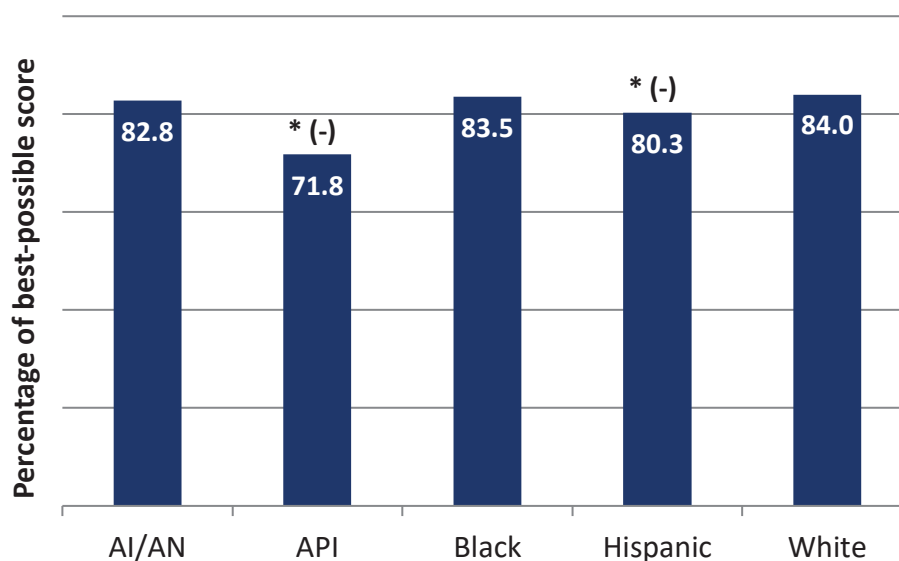
**Hispanic beneficiaries had worse results than White beneficiaries**

- Getting needed care
- Getting appointments and care quickly
- Annual flu vaccine

## Patient Experience

### Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data are from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- AI/AN beneficiaries and Black beneficiaries reported experiences getting needed care that were similar to the experiences reported by White beneficiaries.
- API beneficiaries and Hispanic beneficiaries reported worse<sup>‡</sup> experiences getting needed care than White beneficiaries. The difference between each of these groups and White beneficiaries was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

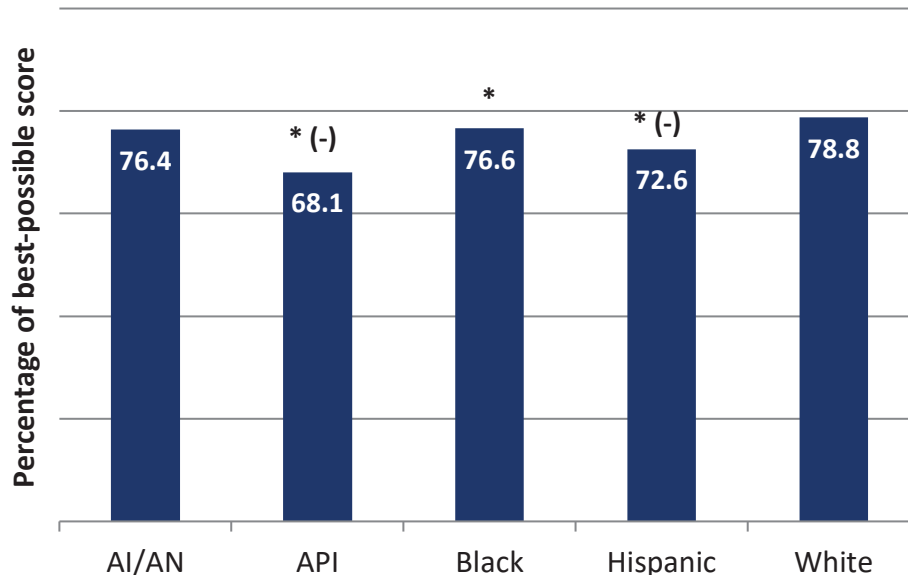
<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>‡</sup> Unlike on the previous two pages, we use the terms *better* or *worse* to describe all statistically significant differences on individual patient experience measures.



### Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- AI/AN beneficiaries reported experiences with getting appointments and care quickly that were similar to the experiences reported by White beneficiaries.
- API, Black, and Hispanic beneficiaries reported worse experiences with getting appointments and care quickly than White beneficiaries. The difference between API beneficiaries and White beneficiaries was greater than 3 points on a 0–100 scale, as was the difference between Hispanic beneficiaries and White beneficiaries. The difference between Black beneficiaries and White beneficiaries was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

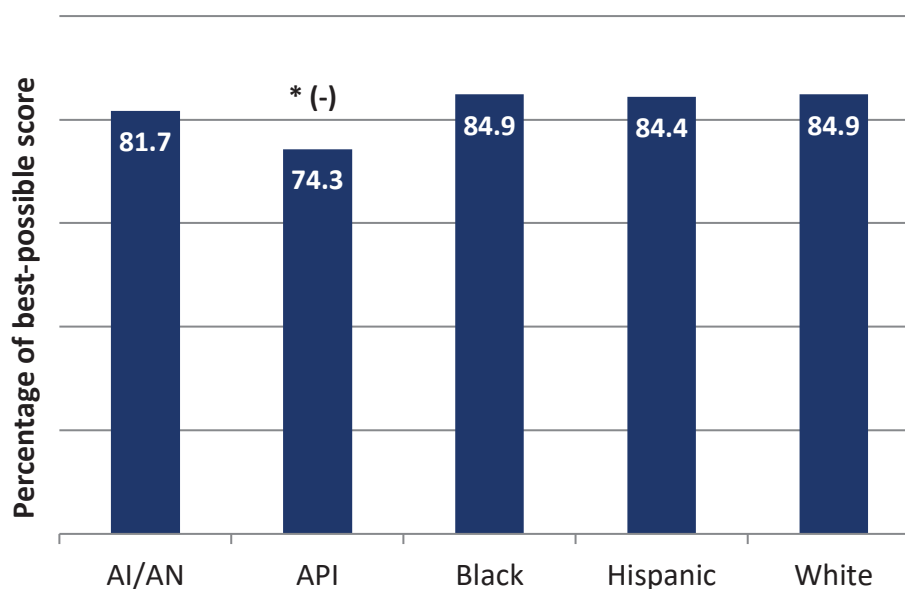
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

### Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on three aspects of customer service,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- AI/AN, Black, and Hispanic beneficiaries reported experiences with customer service that were similar to the experiences that White beneficiaries reported.
- API beneficiaries reported worse experiences with customer service than White beneficiaries reported. The difference between API beneficiaries and White beneficiaries was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

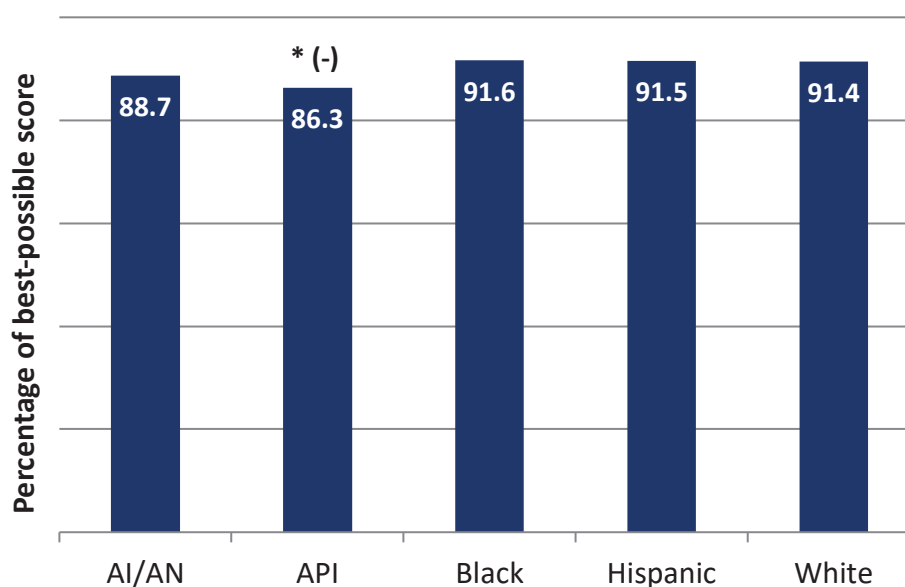
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months health plan customer service staff provided the information or the help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

### Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- AI/AN, Black, and Hispanic beneficiaries reported experiences with doctor communication that were similar to the experiences reported by White beneficiaries.
- API beneficiaries reported worse experiences with doctor communication than White beneficiaries reported. The difference between these groups was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

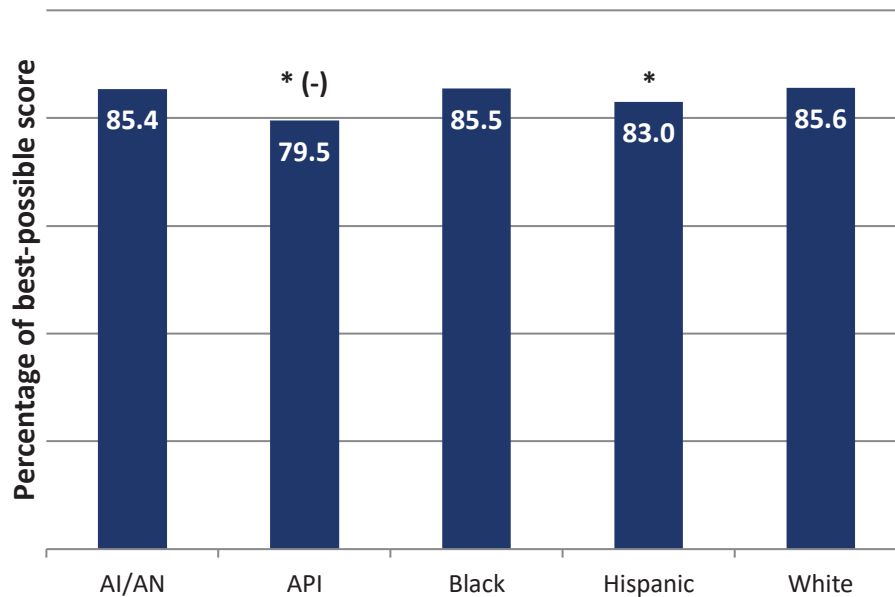
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

### Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patients' care was coordinated,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- AI/AN and Black beneficiaries reported experiences with care coordination that were similar to the experiences reported by White beneficiaries.
- API beneficiaries reported worse experiences with care coordination than White beneficiaries reported. The difference between API and White beneficiaries was greater than 3 points on a 0–100 scale.
- Hispanic beneficiaries reported worse experiences with care coordination than White beneficiaries reported. The difference between Hispanic and White beneficiaries was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

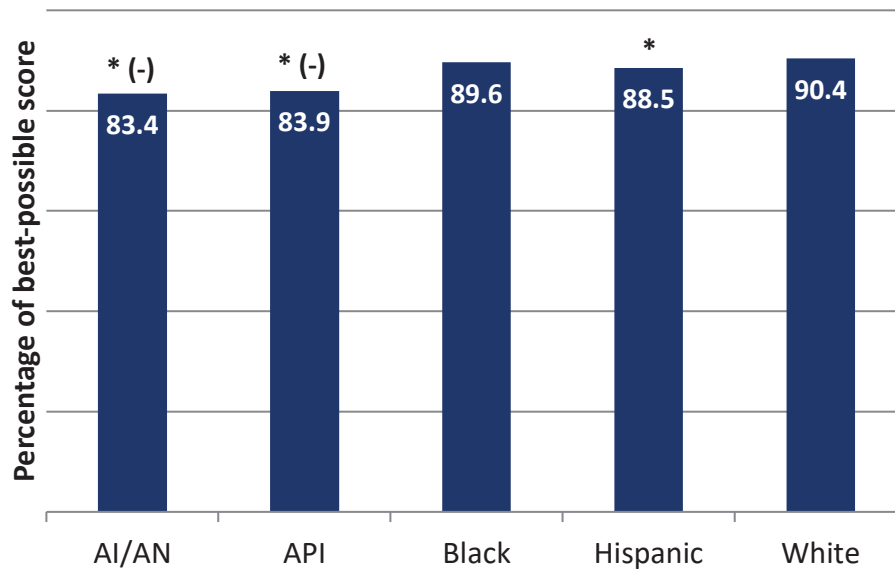
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

### Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- AI/AN and API beneficiaries reported worse experiences with getting needed prescription drugs than White beneficiaries. The difference between each of these groups and White beneficiaries was greater than 3 points on a 0–100 scale.
- Black beneficiaries reported experiences with getting needed prescription drugs that were similar to the experiences that White beneficiaries reported.
- Hispanic beneficiaries reported worse experiences getting needed prescription drugs than White beneficiaries. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

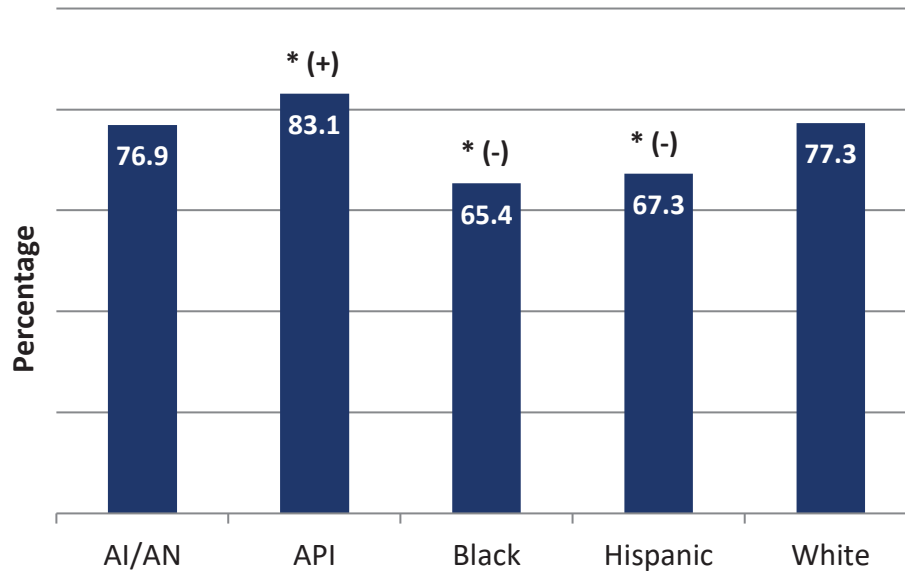
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

### Annual Flu Vaccine

Percentage of MA enrollees who got a vaccine (flu shot), by race and ethnicity, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- AI/AN beneficiaries were about as likely as White beneficiaries to have received the flu vaccine.
- API beneficiaries were more likely than White beneficiaries to have received the flu vaccine. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points.
- Black and Hispanic beneficiaries were less likely than White beneficiaries to have received the flu vaccine. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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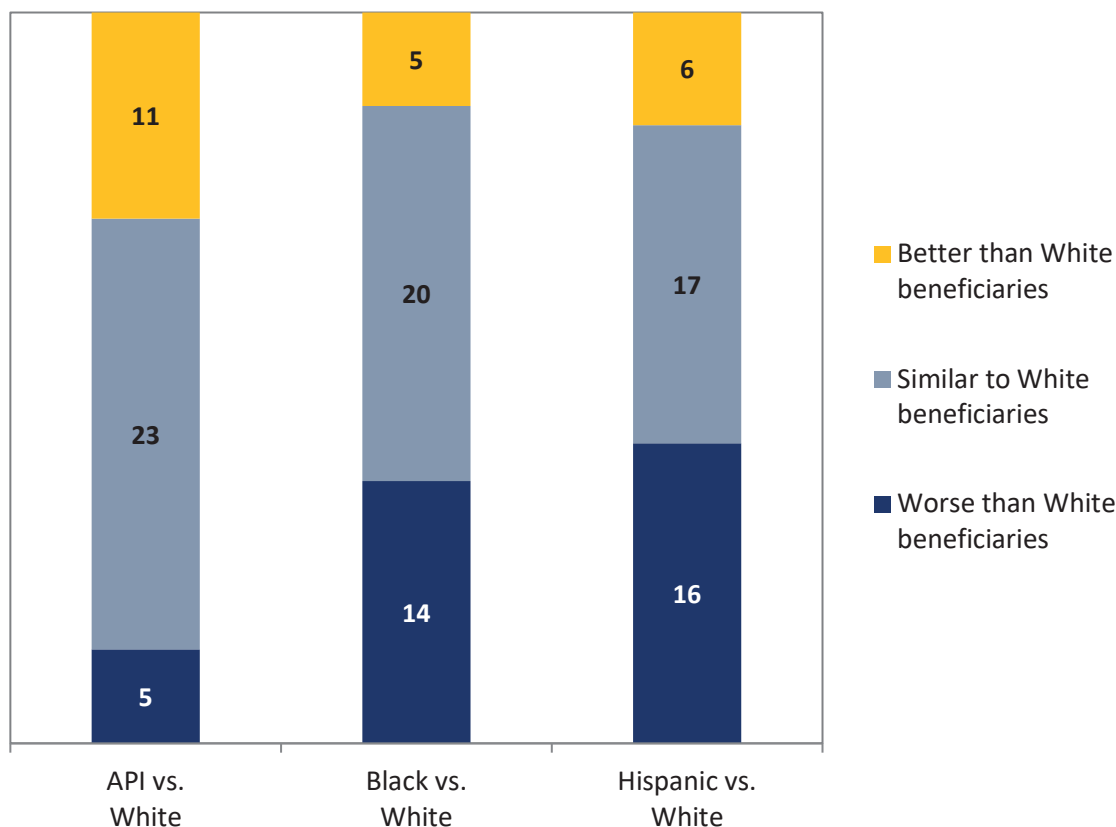
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

### Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 39) for which members of selected groups had results that were worse than, similar to, or better than results for White beneficiaries in 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

The relative difference between a selected group and White beneficiaries is used to assess disparities.

- **Better** = Population received better care than White beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and White beneficiaries received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than White beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor White beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**API beneficiaries had worse results than White beneficiaries**

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Initiation of AOD dependence treatment
- Medication reconciliation after hospital discharge

**API beneficiaries had better results than White beneficiaries**

- Pharmacotherapy management of chronic obstructive pulmonary disorder (COPD) exacerbation—use of bronchodilators
- Controlling high blood pressure
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Osteoporosis management in women who had a fracture
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of high-risk medications in the elderly
- Avoiding use of opioids at high dosage

**Black beneficiaries had worse results than White beneficiaries**

- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood pressure controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black beneficiaries had better results than White beneficiaries**

- Breast cancer screening
- Colorectal cancer screening
- Diabetes care—eye exam
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls



**Hispanic beneficiaries had worse results than White beneficiaries**

- Pharmacotherapy management of COPD exacerbation—systemic corticosteroid
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Initiation of AOD dependence treatment
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding use of opioids from multiple pharmacies

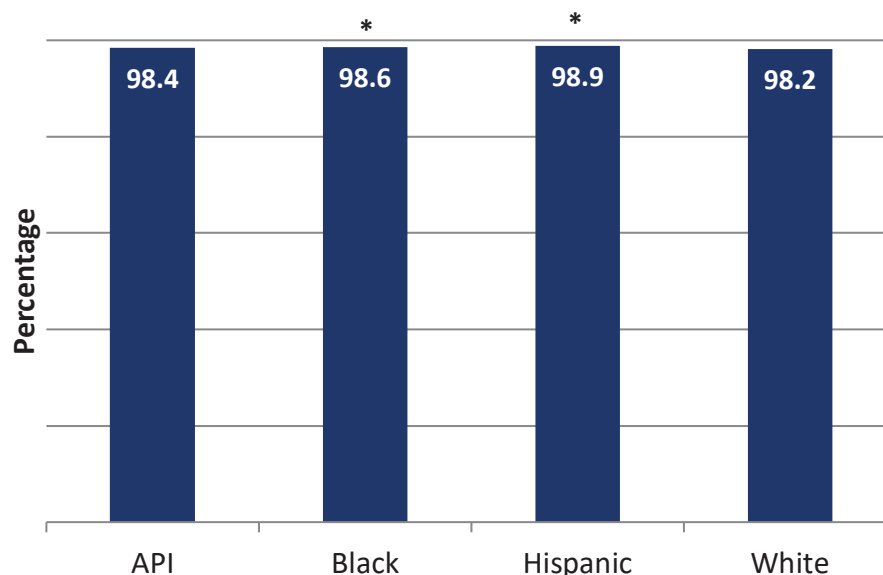
**Hispanic beneficiaries had better results than White beneficiaries**

- Breast cancer screening
- Controlling high blood pressure
- Diabetes care—eye exam
- Statin use in patients with diabetes
- Osteoporosis management in women who had a fracture
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

## Clinical Care: Prevention and Screening

### Adult Body Mass Index (BMI) Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit whose BMI was documented in the past two years, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API beneficiaries were about as likely as White beneficiaries to have had their BMI documented.
- Black beneficiaries and Hispanic beneficiaries were more likely than White beneficiaries to have had their BMI documented. The difference between each of these groups and White beneficiaries was less than 3 percentage points.

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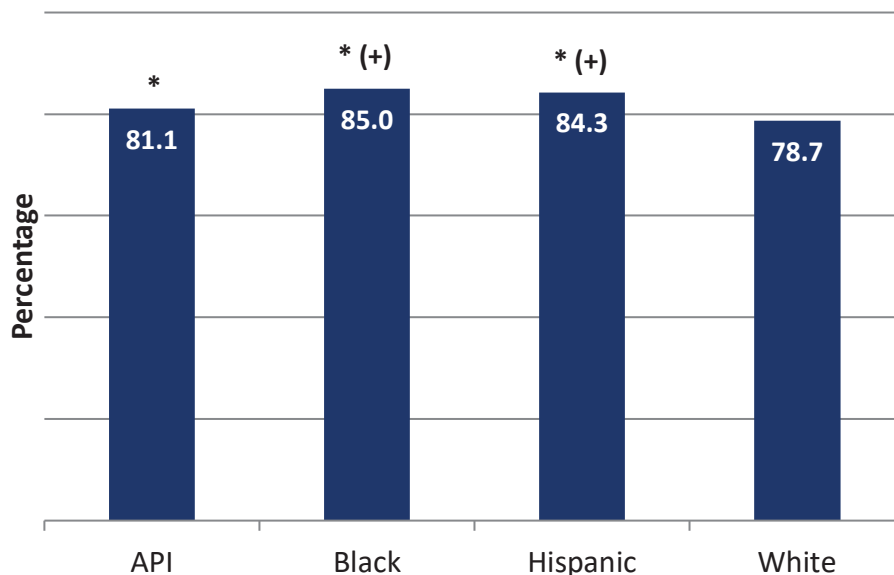
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

### Breast Cancer Screening

Percentage of MA enrollees (women) aged 50 to 74 years who had appropriate screening for breast cancer, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic women were more likely than White women to have been appropriately screened for breast cancer. The difference between API women and White women was less than 3 percentage points. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.

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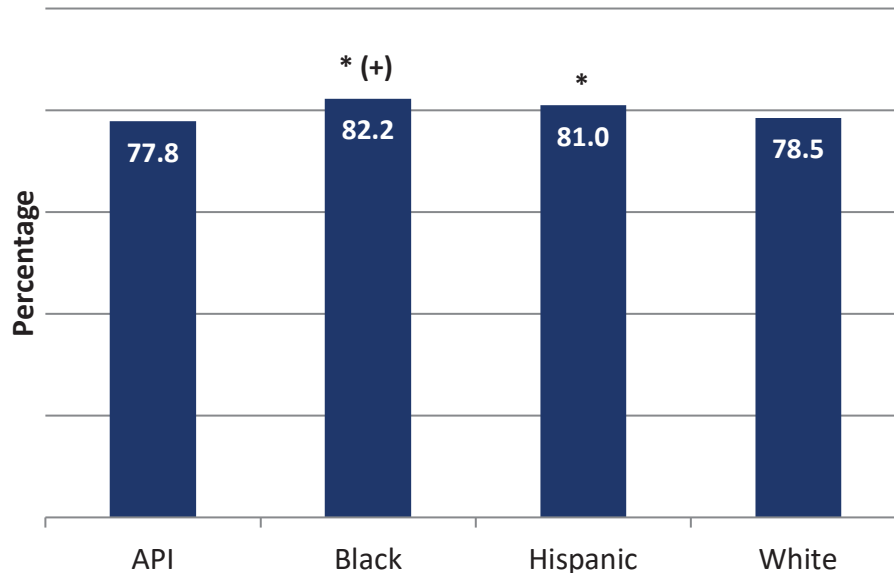
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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### Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API beneficiaries were about as likely as White beneficiaries to have been appropriately screened for colorectal cancer.
- Black and Hispanic beneficiaries were more likely than White beneficiaries to have been appropriately screened for colorectal cancer. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

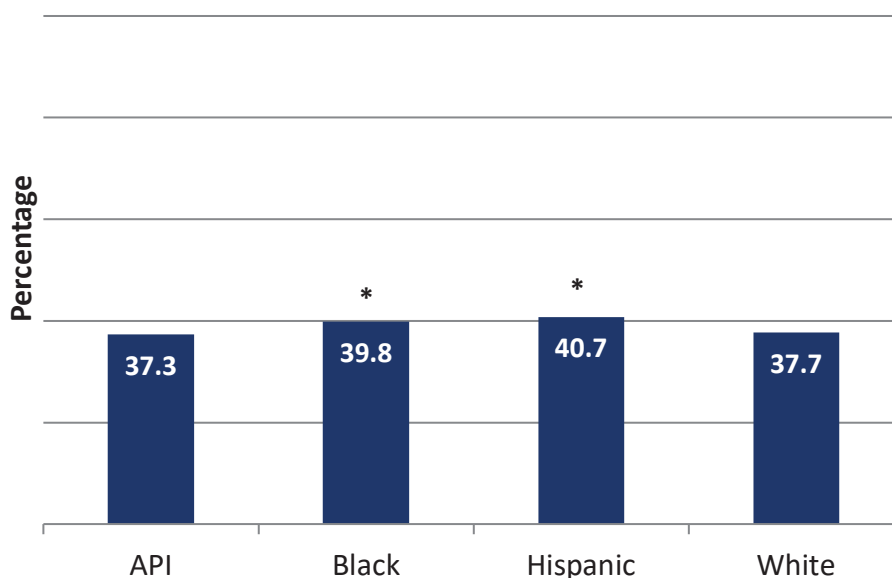
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API beneficiaries with a new diagnosis of COPD or newly active COPD were about as likely as White beneficiaries with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.
- Black and Hispanic beneficiaries with a new diagnosis of COPD or newly active COPD were more likely than White beneficiaries with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between each of these groups and White beneficiaries was less than 3 percentage points.<sup>†</sup>

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

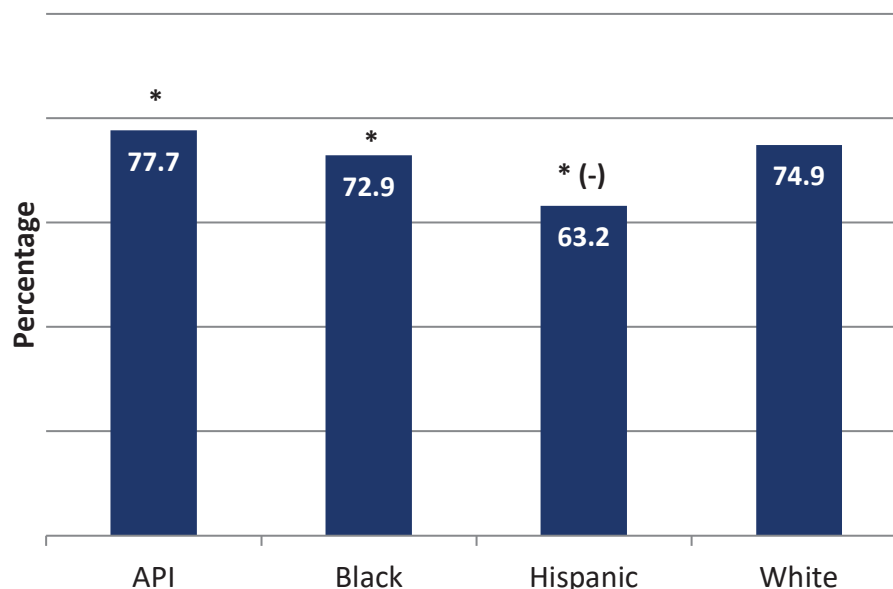
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Prior to rounding.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who experienced a COPD exacerbation were more likely than White beneficiaries who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points.
- Black and Hispanic beneficiaries who experienced a COPD exacerbation were less likely than White beneficiaries who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points. The difference between Hispanic beneficiaries and White beneficiaries was greater than 3 percentage points.

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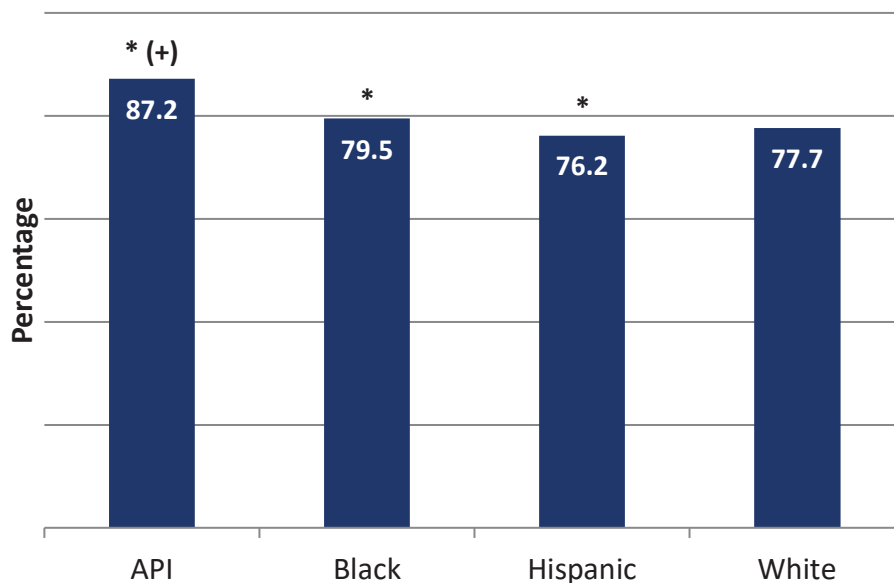
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who experienced a COPD exacerbation were more likely than White beneficiaries who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points.
- Black beneficiaries who experienced a COPD exacerbation were more likely than White beneficiaries who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.
- Hispanic beneficiaries who experienced a COPD exacerbation were less likely than White beneficiaries who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

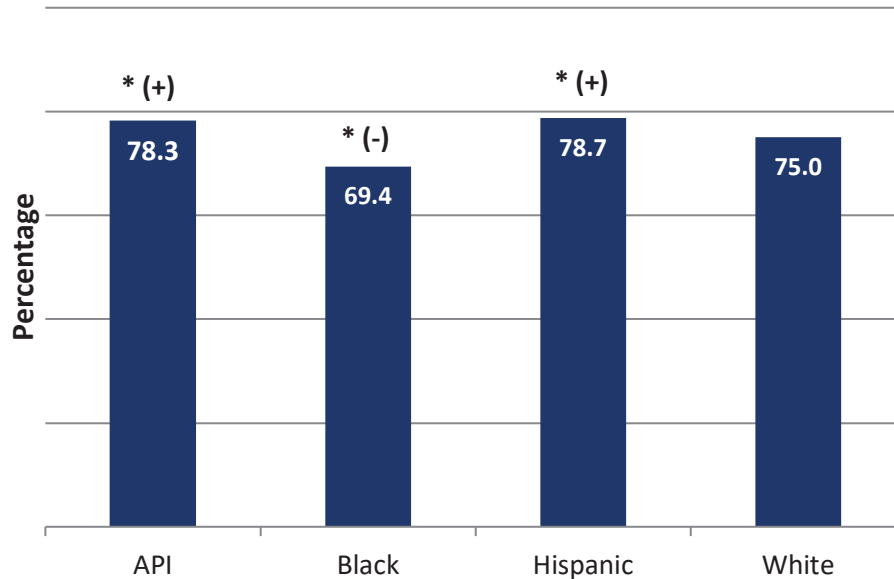
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA enrollees aged 18 to 85 years with a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic beneficiaries who had a diagnosis of hypertension were more likely than White beneficiaries who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.
- Black beneficiaries who had a diagnosis of hypertension were less likely than White beneficiaries who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

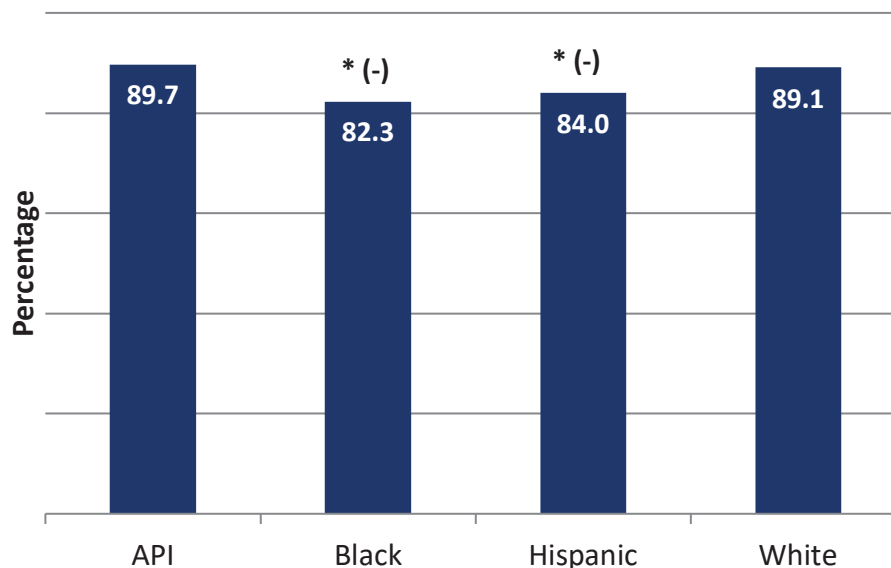
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.



## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged with a diagnosis of acute myocardial infarction (AMI) who received continuous beta-blocker treatment for six months after discharge, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who were hospitalized for a heart attack were about as likely as White beneficiaries who were hospitalized for a heart attack to have received continuous beta-blocker treatment.
- Black and Hispanic beneficiaries who were hospitalized for a heart attack were less likely than White beneficiaries who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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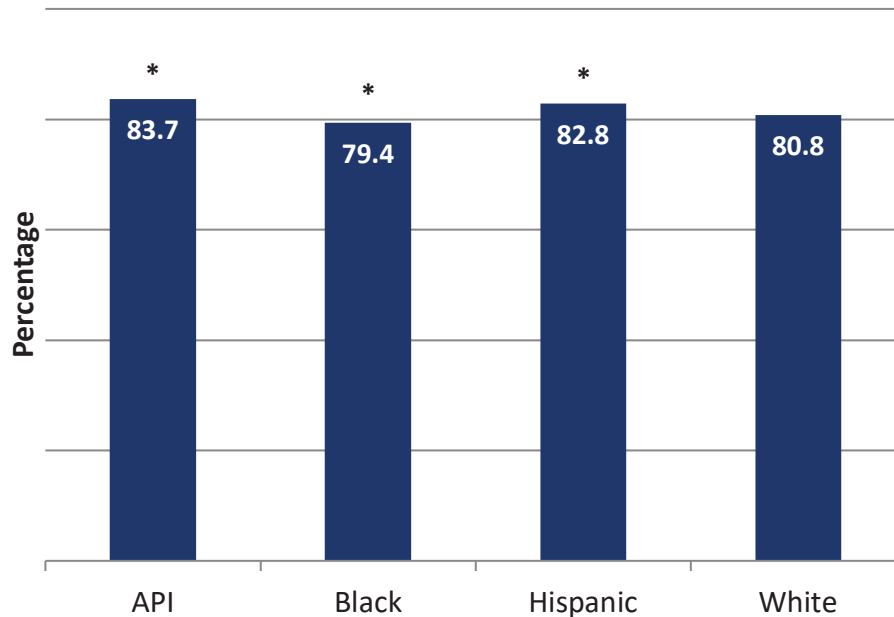
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Statin Use in Patients with Cardiovascular Disease

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic beneficiaries with ASCVD were more likely than White beneficiaries with ASCVD to have received statin therapy. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Black beneficiaries with ASCVD were less likely than White beneficiaries with ASCVD to have received statin therapy. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

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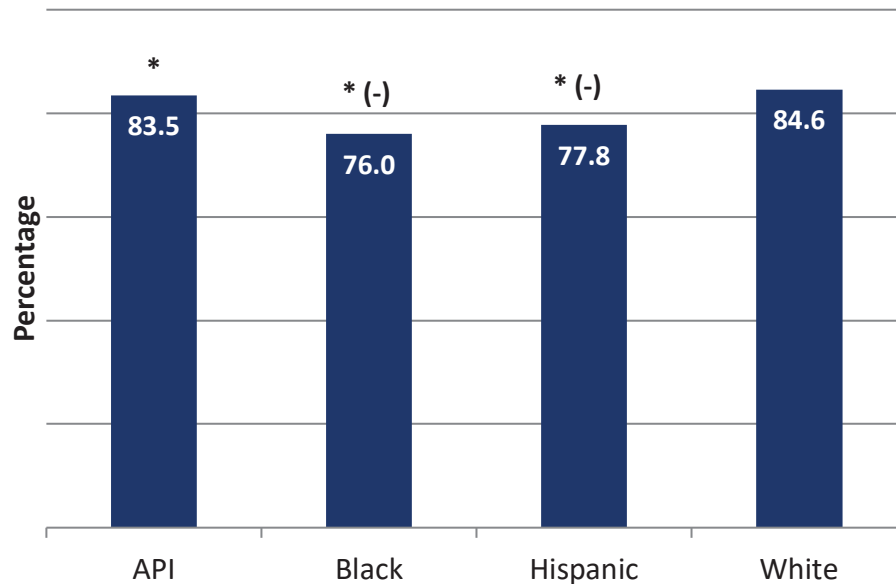
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- o API, Black, and Hispanic beneficiaries with ASCVD were less likely than White beneficiaries with ASCVD to have had proper statin medication adherence. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points, as was the difference between Hispanic beneficiaries and White beneficiaries.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

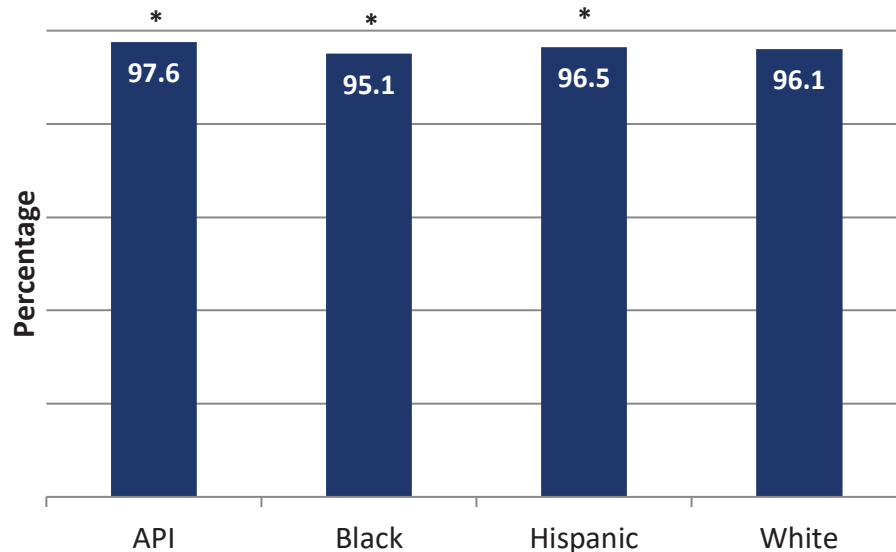
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## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have had their blood sugar tested at least once in the past year. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Black beneficiaries with diabetes were less likely than White beneficiaries with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

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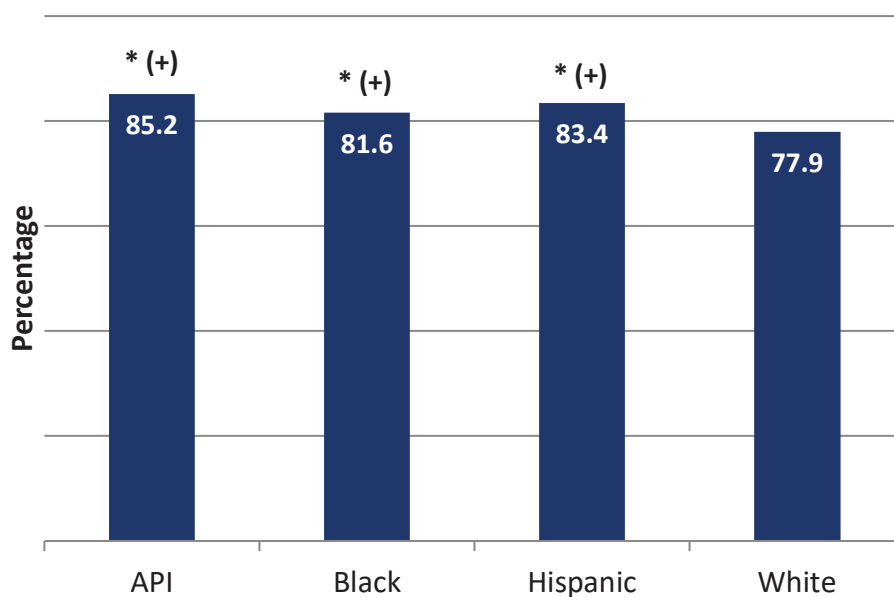
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

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## Diabetes Care—Eye Exam

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have had an eye exam in the past year. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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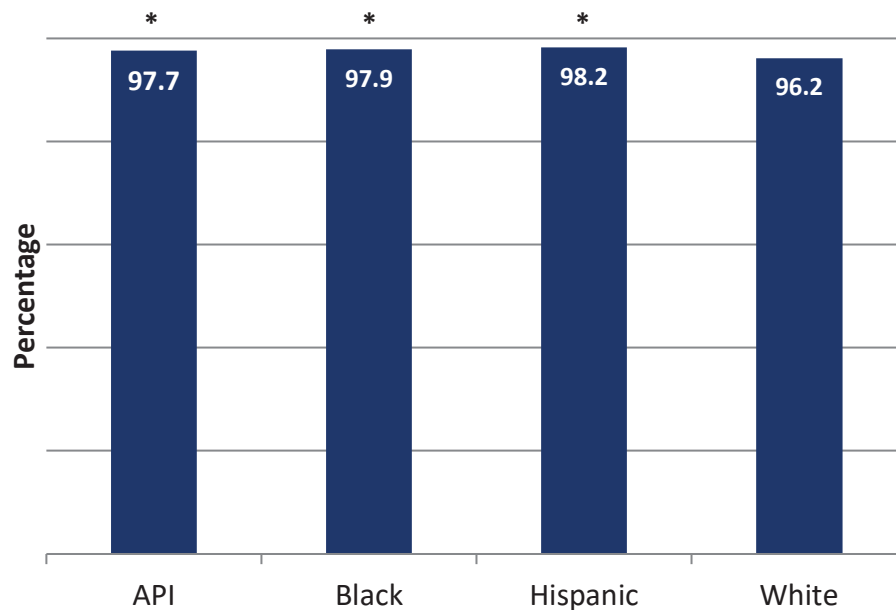
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

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- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Diabetes Care—Kidney Disease Monitoring

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have had medical attention for nephropathy in the past year. The difference between each of these groups and White beneficiaries was less than 3 percentage points.

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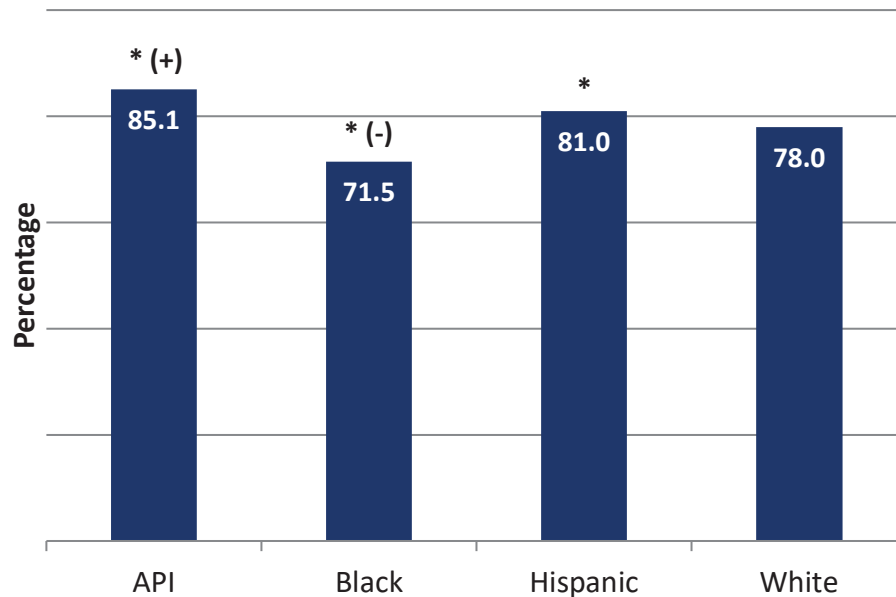
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have their blood pressure under control. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 percentage points.<sup>†</sup>
- Black beneficiaries with diabetes were less likely than White beneficiaries with diabetes to have their blood pressure under control. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

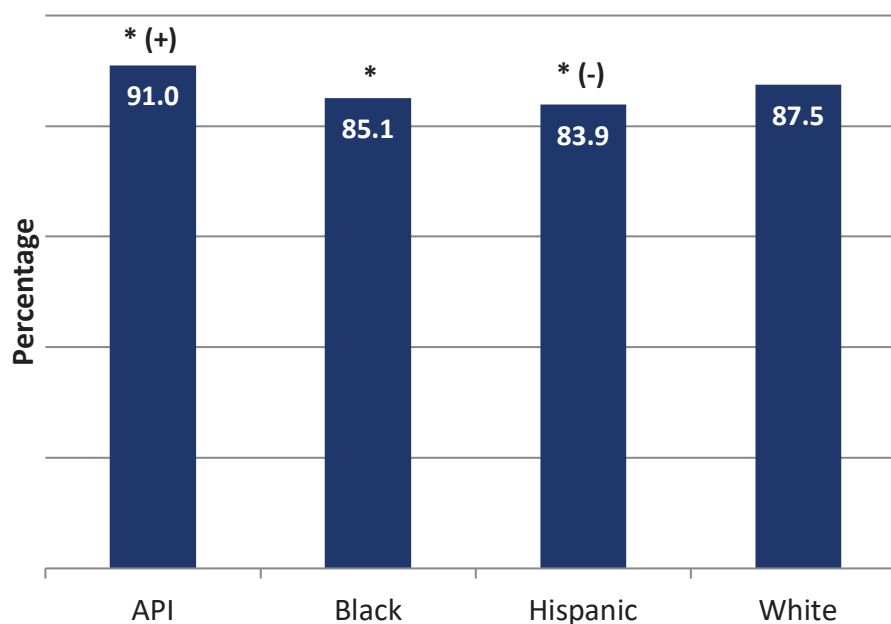
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Prior to rounding.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have their blood sugar level under control. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points.
- Black and Hispanic beneficiaries with diabetes were less likely than White beneficiaries with diabetes to have their blood sugar level under control. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points. The difference between Hispanic beneficiaries and White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

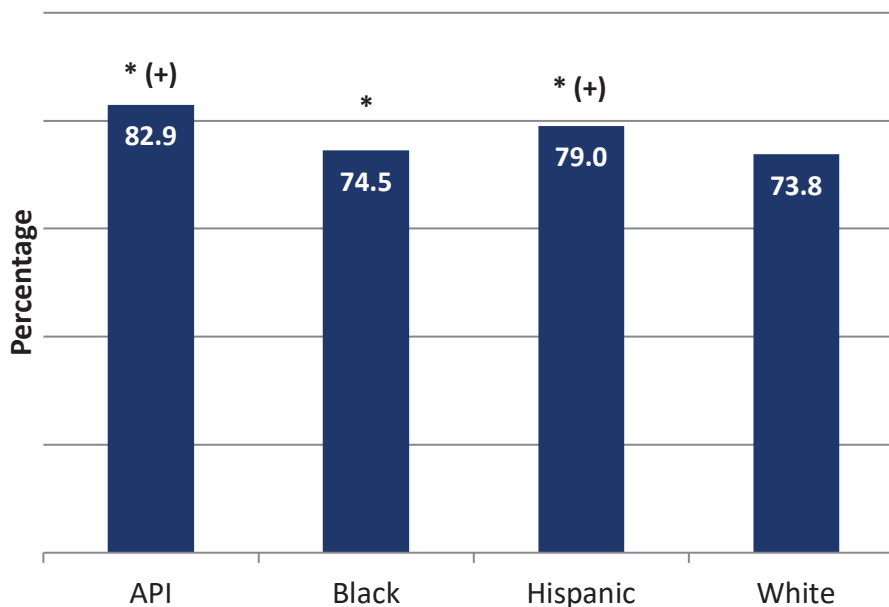
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



### Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic beneficiaries with diabetes were more likely than White beneficiaries with diabetes to have received statin therapy. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points, as was the difference between Hispanic beneficiaries and White beneficiaries. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

<sup>†</sup> Excludes those who also have clinical ASCVD.

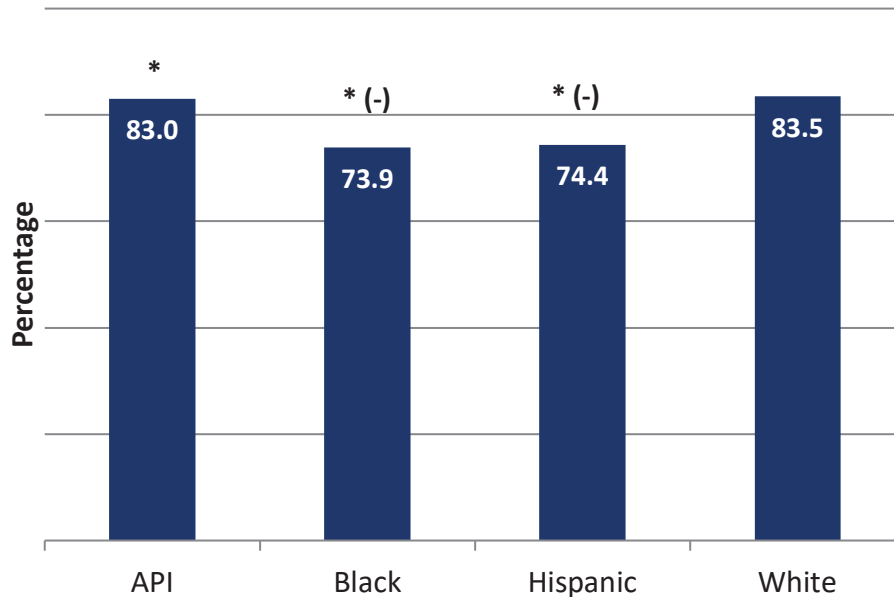
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

### Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic beneficiaries with diabetes were less likely than White beneficiaries with diabetes to have had proper statin medication adherence. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points, as was the difference between Hispanic beneficiaries and White beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

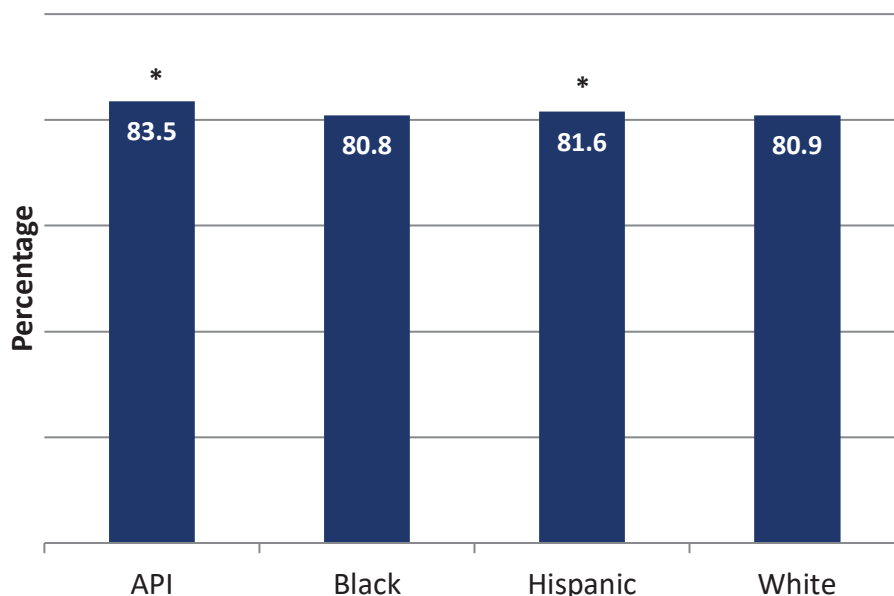
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic beneficiaries who were diagnosed with rheumatoid arthritis were more likely than White beneficiaries who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Black beneficiaries who were diagnosed with rheumatoid arthritis were about as likely as White beneficiaries who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD.

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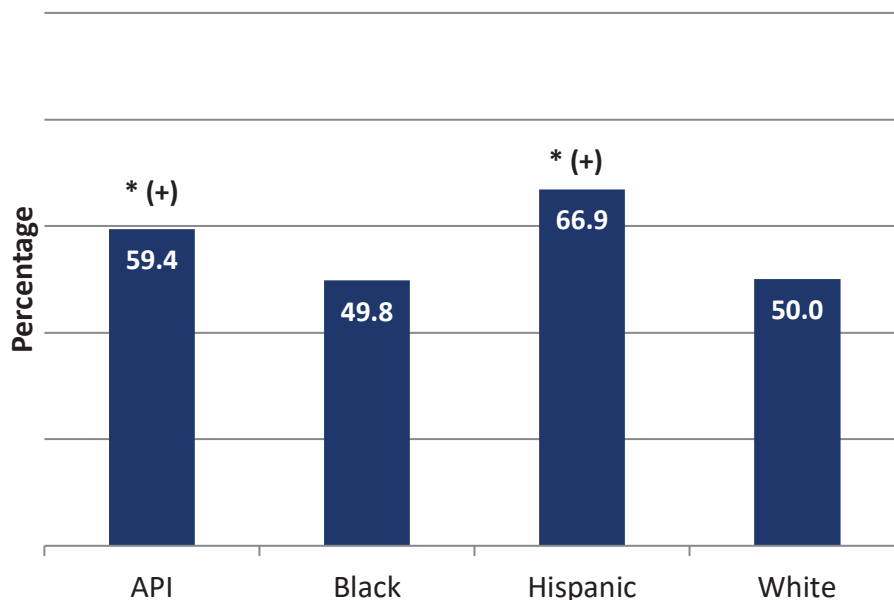
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Osteoporosis Management in Women Who Had a Fracture

Percentage of MA enrollees (women) aged 67 to 85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. The difference between each of these groups and White women was greater than 3 percentage points.
- Black women who suffered a fracture were about as likely as White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

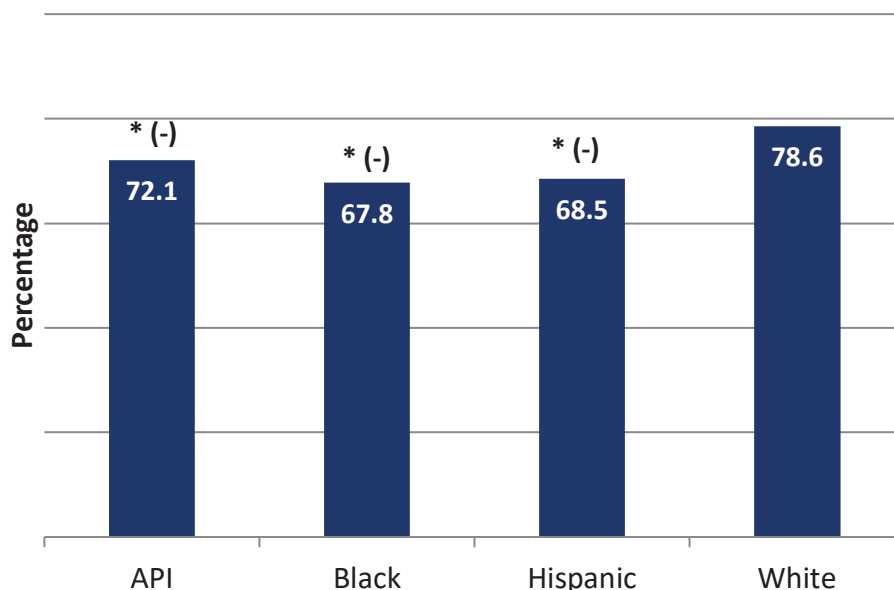
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic beneficiaries who were diagnosed with a new episode of major depression were less likely than White beneficiaries who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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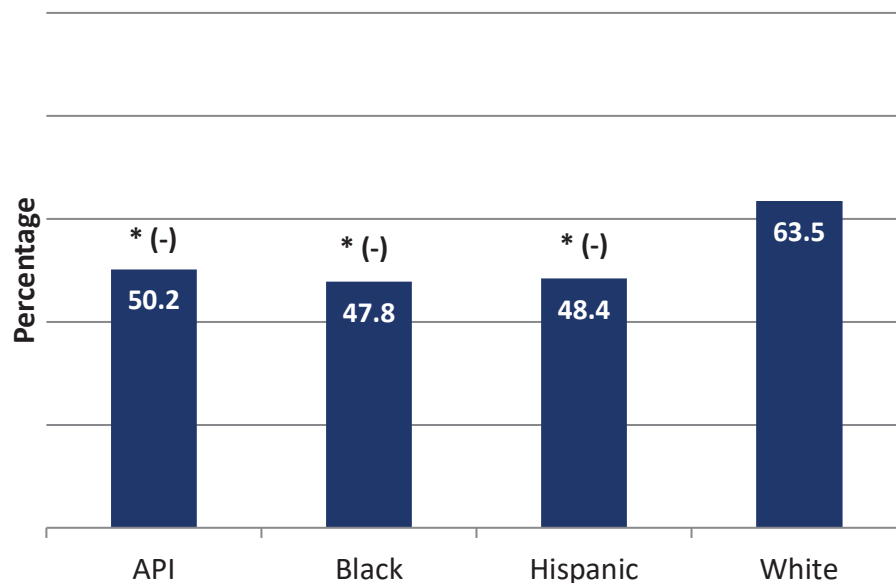
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on antidepressant medication for at least 180 days, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic beneficiaries who were diagnosed with a new episode of major depression were less likely than White beneficiaries who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

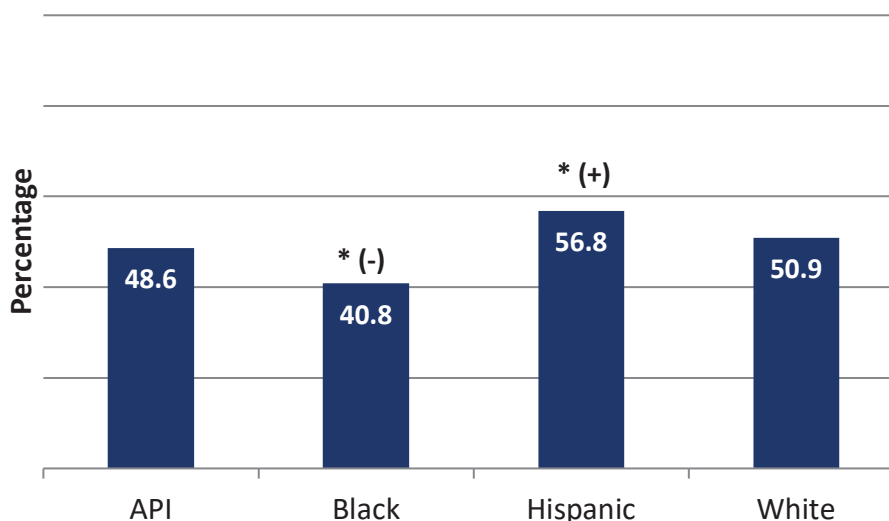
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who were hospitalized for a mental health disorder were about as likely as White beneficiaries who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge.
- Black beneficiaries who were hospitalized for a mental health disorder were less likely than White beneficiaries who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between Black beneficiaries and White beneficiaries was greater than 3 percentage points.
- Hispanic beneficiaries who were hospitalized for a mental health disorder were more likely than White beneficiaries who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between Hispanic beneficiaries and White beneficiaries was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

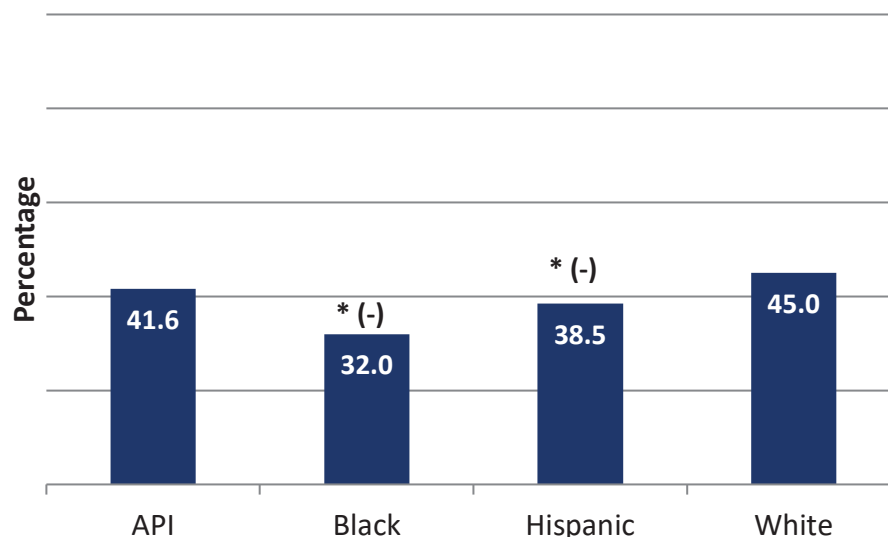
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who had an ED visit for a mental health disorder were about as likely as White beneficiaries who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit.
- Black and Hispanic beneficiaries who had an ED visit for a mental health disorder were less likely than White beneficiaries who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

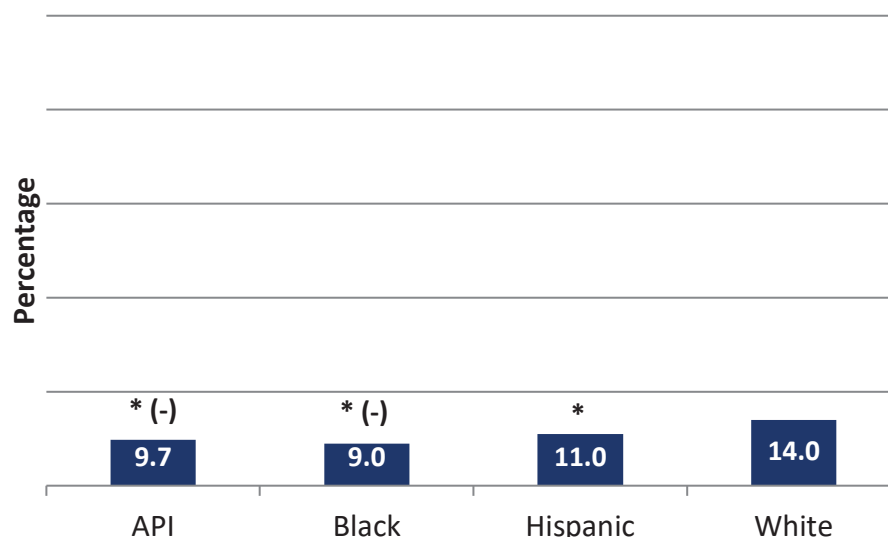
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.



## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic beneficiaries who had an ED visit for AOD abuse or dependence were less likely than White beneficiaries who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points, as was the difference between Black beneficiaries and White beneficiaries. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 percentage points.<sup>‡</sup>

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

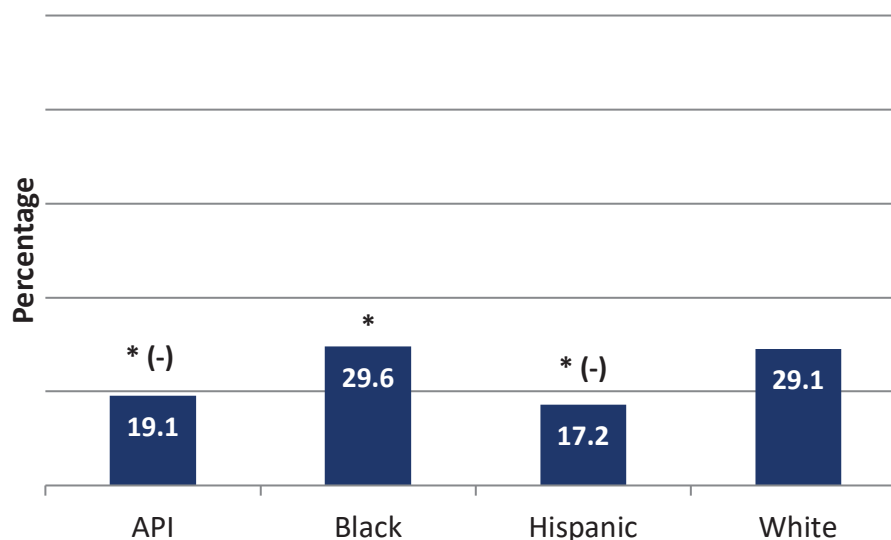
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Prior to rounding.

## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic beneficiaries with a new episode of AOD dependence were less likely than White beneficiaries with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.
- Black beneficiaries with a new episode of AOD dependence were more likely than White beneficiaries with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

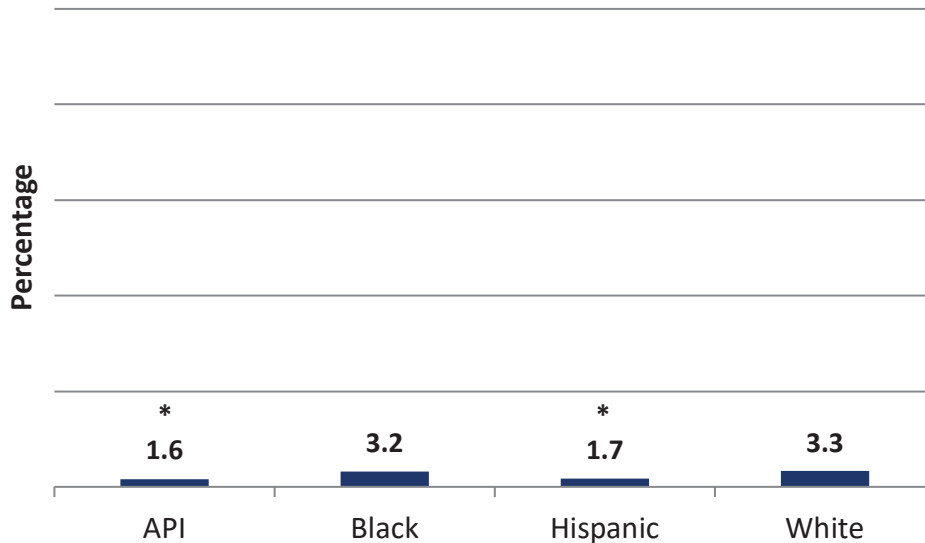
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation might occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol and Other Drug Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic beneficiaries with a new episode of AOD dependence who initiated treatment were less likely than White beneficiaries with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Black beneficiaries with a new episode of AOD dependence who initiated treatment were about as likely as White beneficiaries with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

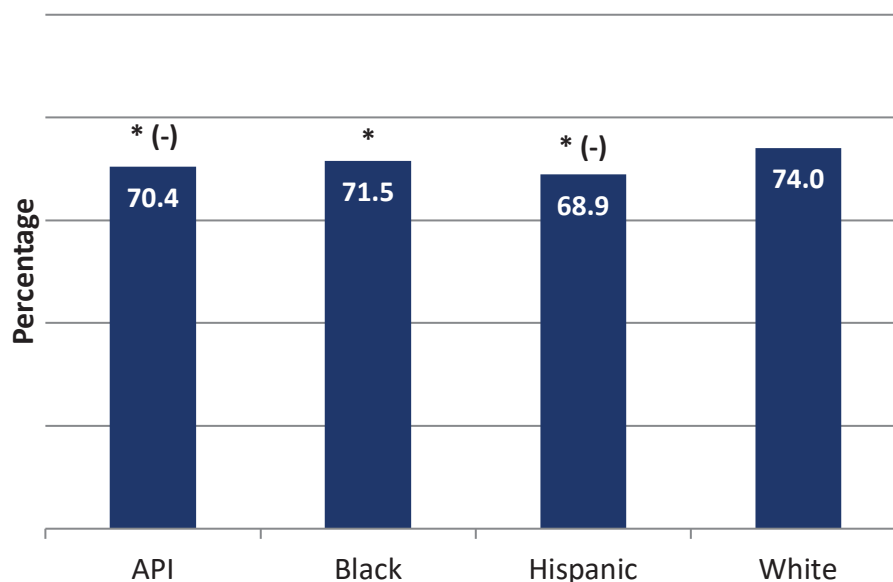
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Clinical Care: Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- o API, Black, and Hispanic beneficiaries who were discharged from an inpatient facility were less likely than White beneficiaries who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points, as was the difference between Hispanic beneficiaries and White beneficiaries. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

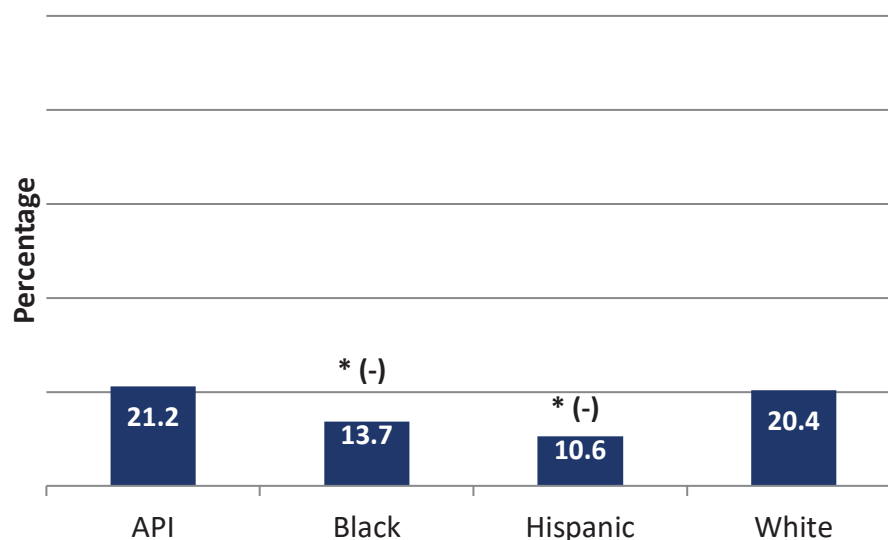
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- The primary or ongoing care providers of API beneficiaries who were discharged from an inpatient facility were about as likely as the primary or ongoing care providers of White beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission.
- The primary or ongoing care providers of Black and Hispanic beneficiaries who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of White beneficiaries who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In each case, the difference was greater than 3 percentage points.

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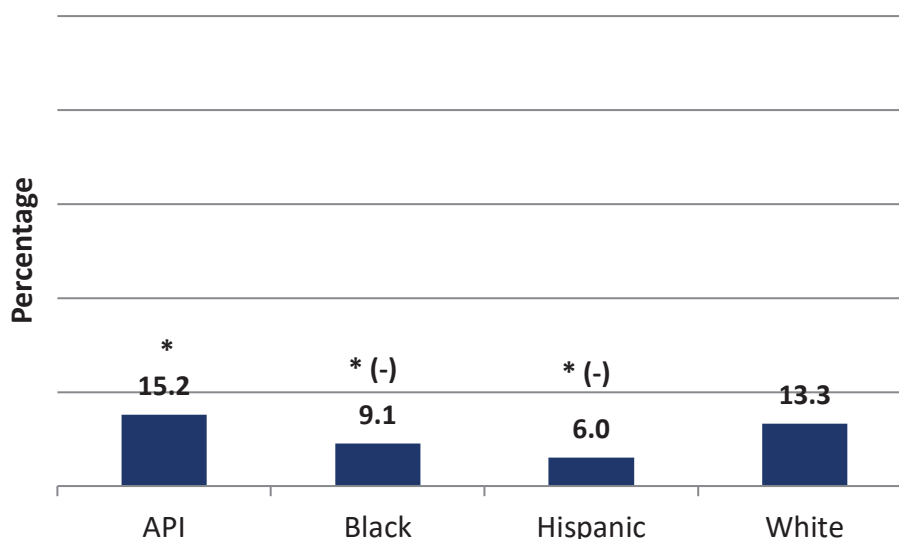
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries who were discharged from an inpatient facility were more likely than White beneficiaries who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points.
- Black and Hispanic beneficiaries who were discharged from an inpatient facility were less likely than White beneficiaries who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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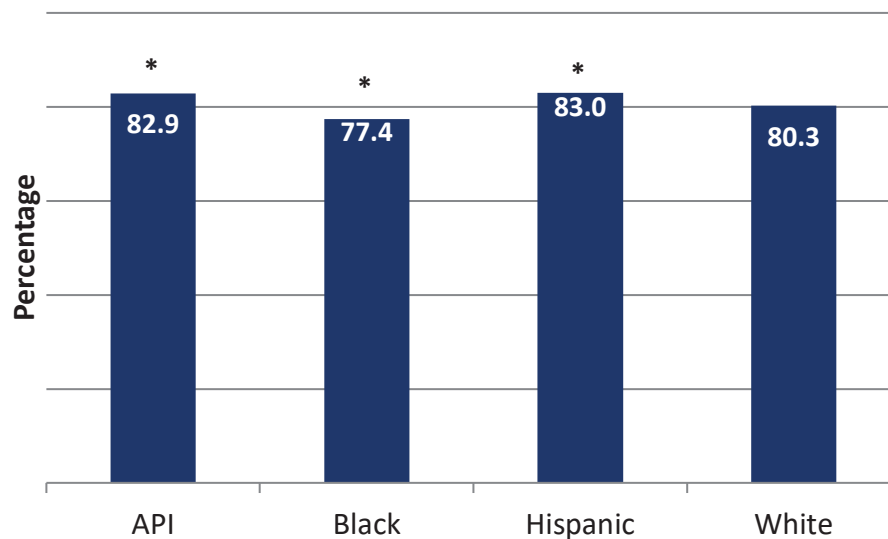
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic beneficiaries who were discharged from an inpatient facility were more likely than White beneficiaries who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Black beneficiaries who were discharged from an inpatient facility were less likely than White beneficiaries who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points.

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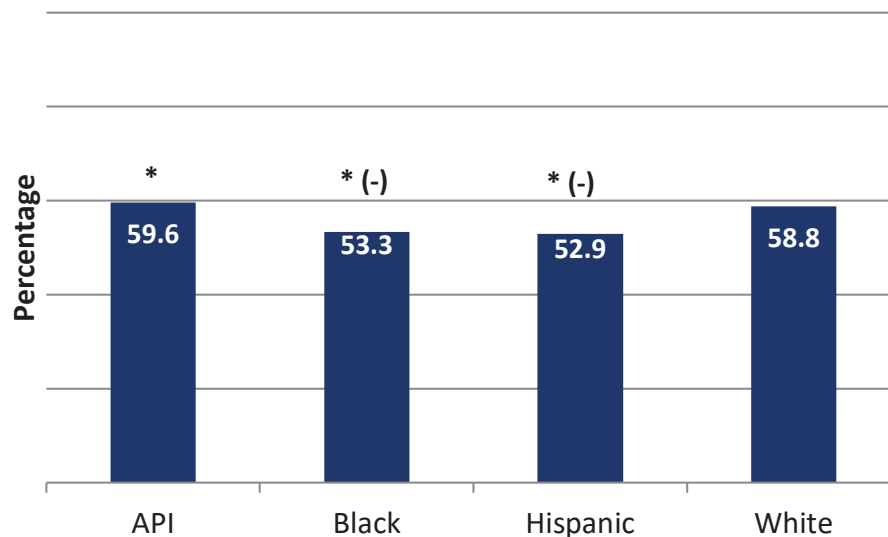
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API beneficiaries with multiple high-risk chronic conditions were more likely than White beneficiaries with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points.
- Black and Hispanic beneficiaries with multiple high-risk chronic conditions were less likely than White beneficiaries with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between each of these groups and White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

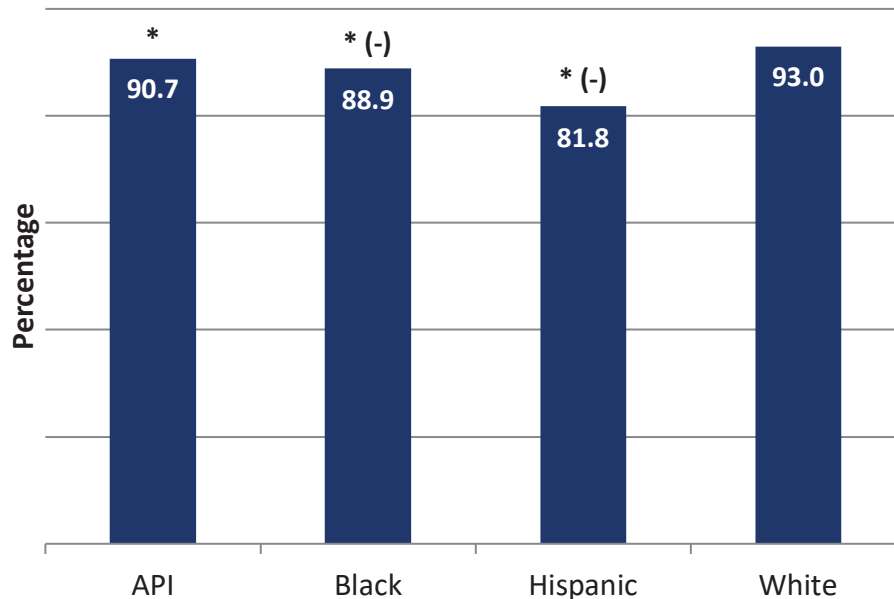
<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.



## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly API, Black, and Hispanic beneficiaries with chronic renal failure than for elderly White beneficiaries with chronic renal failure. The difference between elderly API beneficiaries and elderly White beneficiaries was less than 3 percentage points. The difference between elderly Black beneficiaries and elderly White beneficiaries was greater than 3 percentage points, as was the difference between elderly Hispanic beneficiaries and elderly White beneficiaries.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

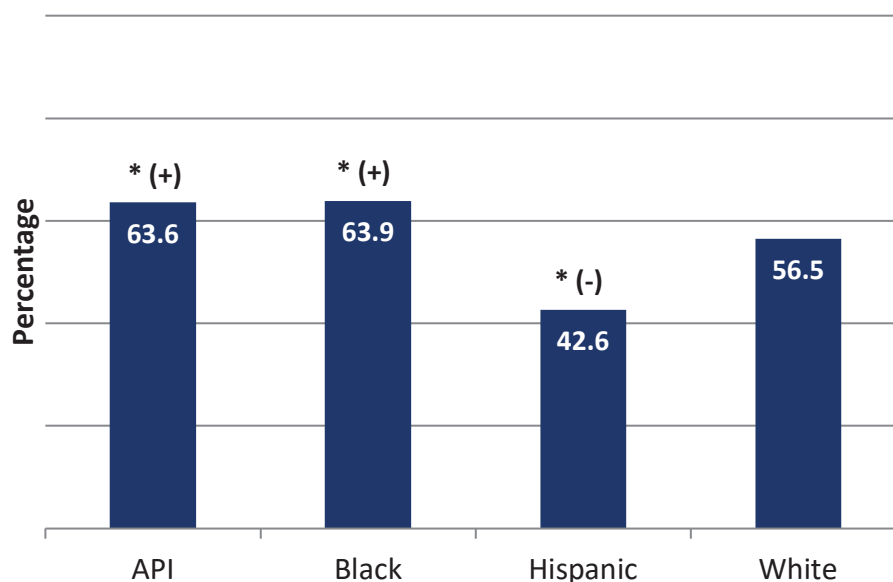
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes cyclooxygenase-2 selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

**Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API and elderly Black beneficiaries with dementia than for elderly White beneficiaries with dementia. The difference between each of these groups and elderly White beneficiaries was greater than 3 percentage points.
- Use of potentially harmful medication was avoided less often for elderly Hispanic beneficiaries with dementia than for elderly White beneficiaries with dementia. The difference between elderly Hispanic beneficiaries and elderly White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

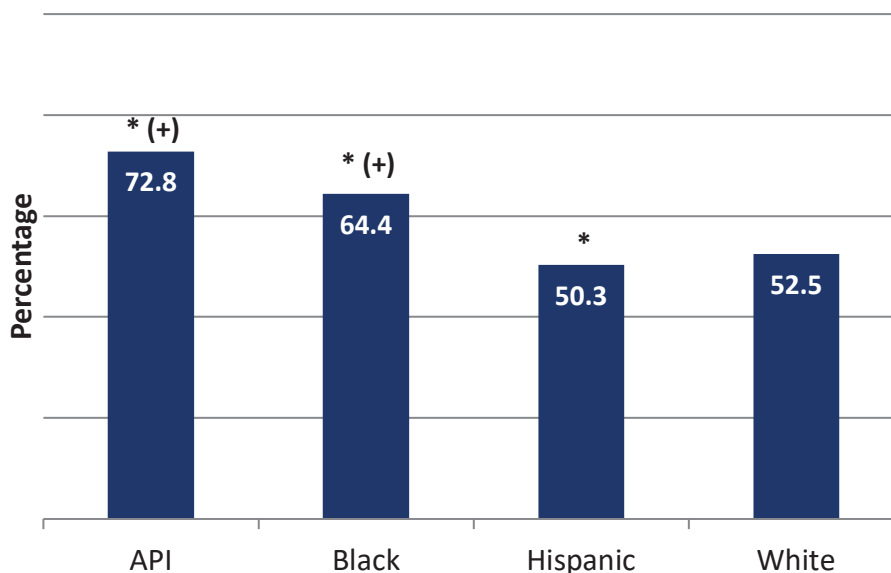
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API and elderly Black beneficiaries with a history of falls than for elderly White beneficiaries with a history of falls. The difference between each of these groups and elderly White beneficiaries was greater than 3 percentage points.
- Use of potentially harmful medication was avoided less often for elderly Hispanic beneficiaries with a history of falls than for elderly White beneficiaries with a history of falls. The difference between elderly Hispanic beneficiaries and elderly White beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

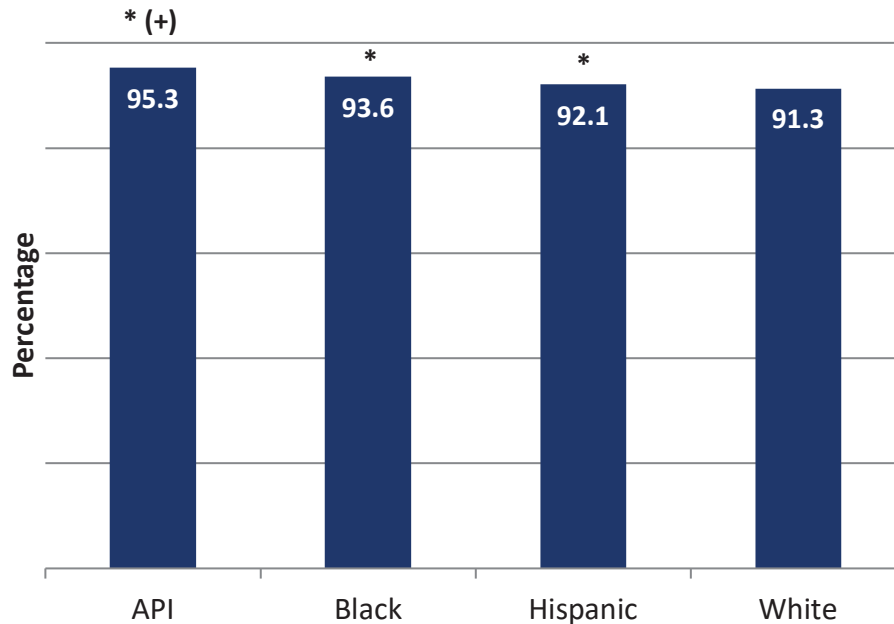
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of high-risk medication was avoided more often for elderly API, elderly Black, and elderly Hispanic beneficiaries than for elderly White beneficiaries. The difference between elderly API and elderly White beneficiaries was greater than 3 percentage points. The difference between elderly Black beneficiaries and elderly White beneficiaries was less than 3 percentage points, as was the difference between elderly Hispanic beneficiaries and elderly White beneficiaries.

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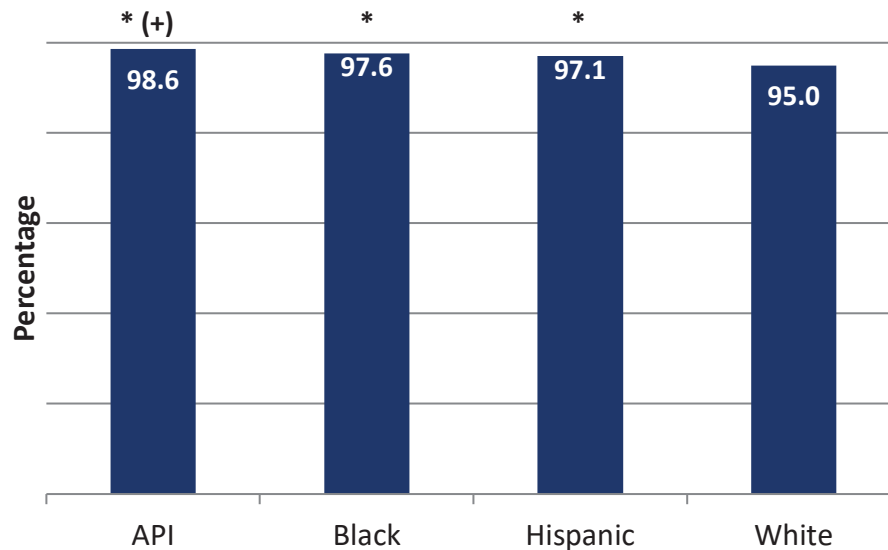
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- o Use of opioids at a high dosage for more than 14 days was avoided more often for API, Black, and Hispanic beneficiaries than for White beneficiaries. The difference between API beneficiaries and White beneficiaries was greater than 3 percentage points. The difference Black beneficiaries and White beneficiaries was less than 3 percentage points, as was the difference between Hispanic beneficiaries and White beneficiaries.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

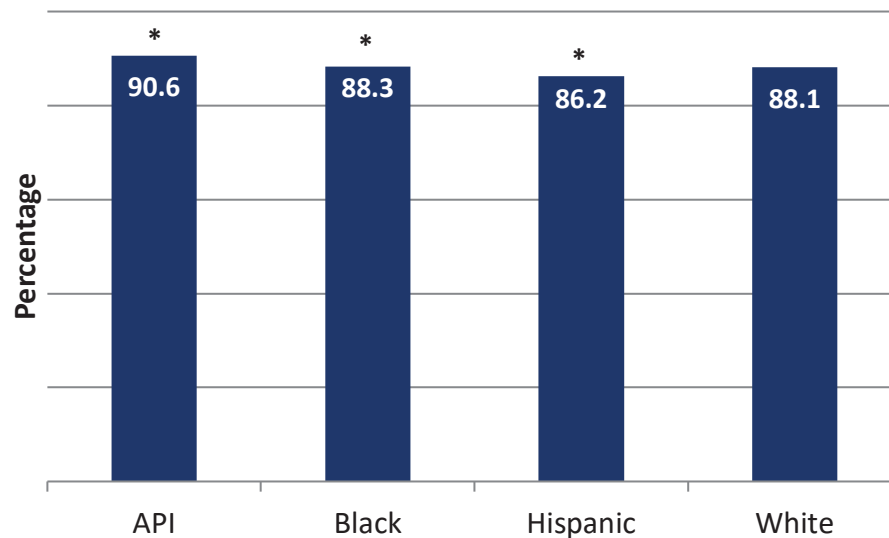
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Average morphine equivalent dose > 120 mg.

### Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Use of opioids from multiple prescribers was avoided more often for API and Black beneficiaries than for White beneficiaries. The difference between each of these groups and White beneficiaries was less than 3 percentage points.
- Use of opioids from multiple prescribers was avoided less often for Hispanic beneficiaries than for White beneficiaries. The difference between Hispanic beneficiaries and White beneficiaries was less than 3 percentage points.

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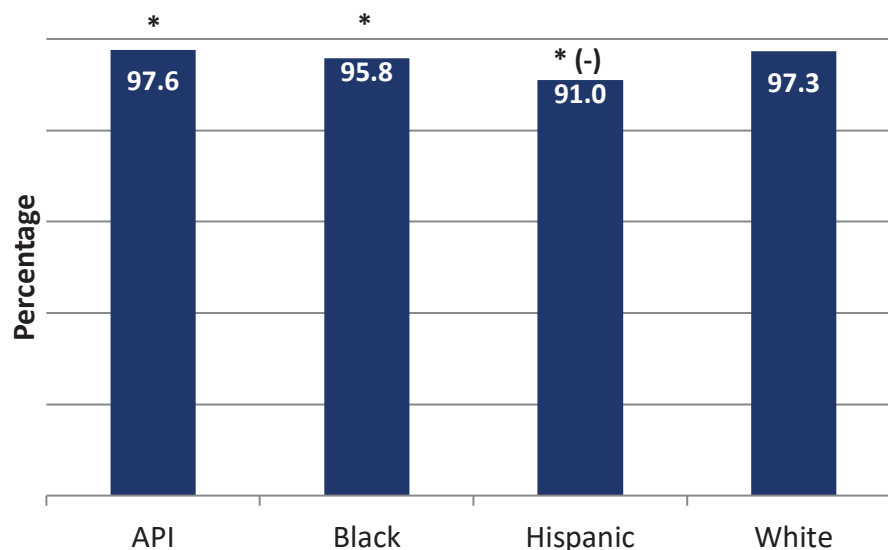
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of opioids from multiple pharmacies was avoided more often for API beneficiaries than for White beneficiaries. The difference between API beneficiaries and White beneficiaries was less than 3 percentage points.
- Use of opioids from multiple pharmacies was avoided less often for Black and Hispanic beneficiaries than for White beneficiaries. The difference between Black beneficiaries and White beneficiaries was less than 3 percentage points. The difference between Hispanic beneficiaries and White beneficiaries was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

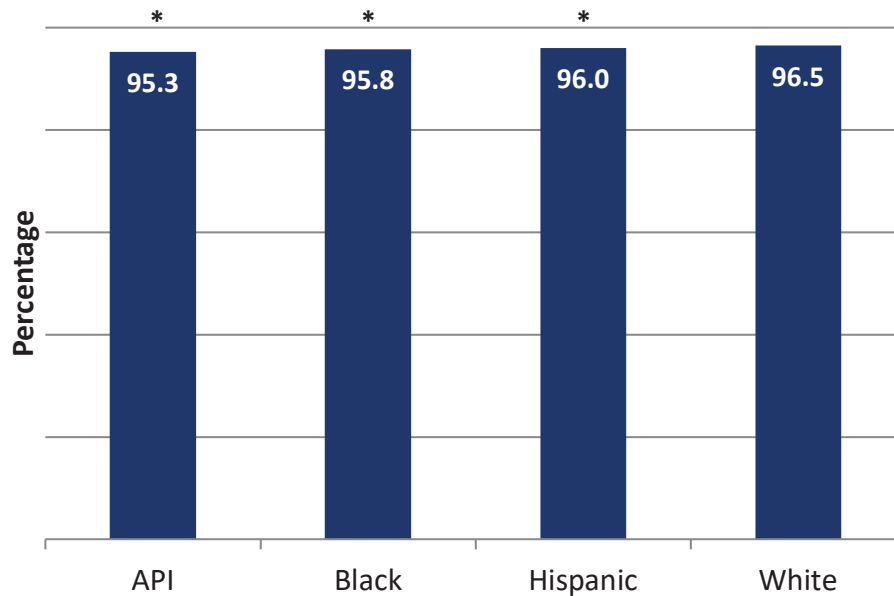
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by race and ethnicity, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- o API, Black, and Hispanic beneficiaries were less likely than White beneficiaries to have had an ambulatory or preventive care visit. The difference between each of these groups and White beneficiaries was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



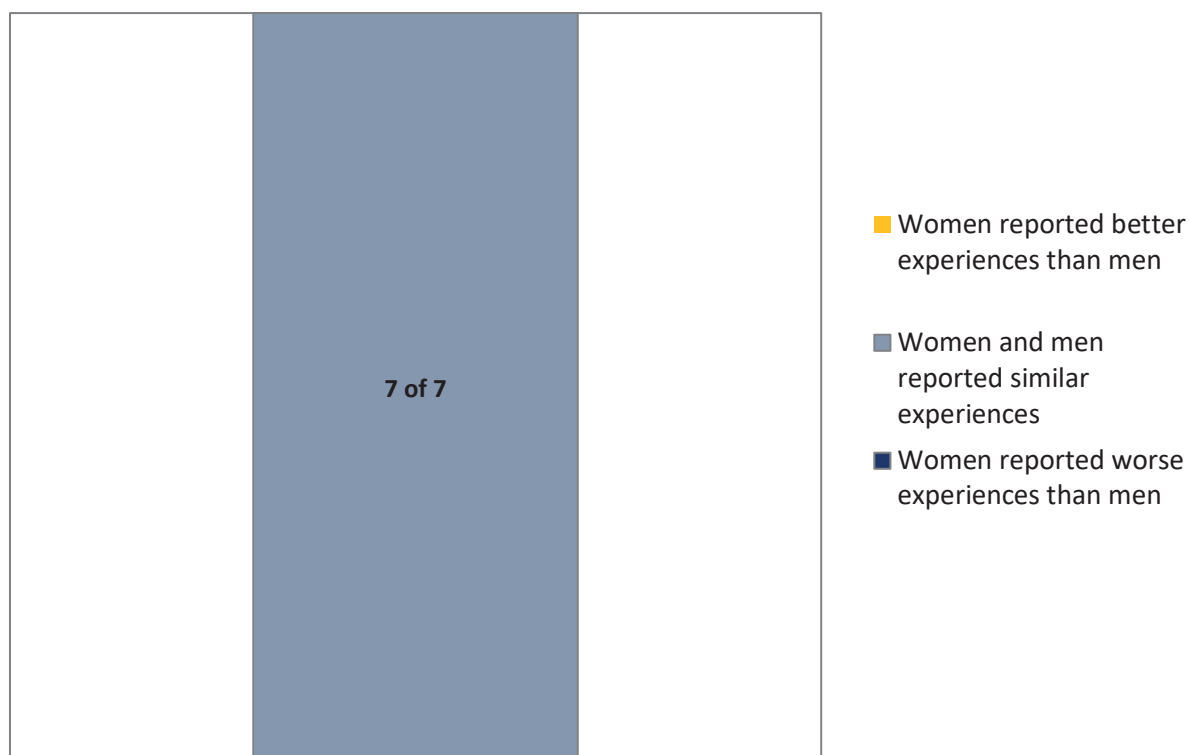
# SECTION II:

## Gender Disparities in Health Care in Medicare Advantage



## Disparities in Care: All Patient Experience and Clinical Care Measures

Number of patient experience measures (out of 7) for which women reported experiences that were worse than, similar to, or better than the experiences reported by men in 2019



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

The relative difference between men and women is used to assess disparities.

- **Better** = Women received better care than men. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor women.
- **Similar** = Women and men received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Women received worse care than men. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor men.

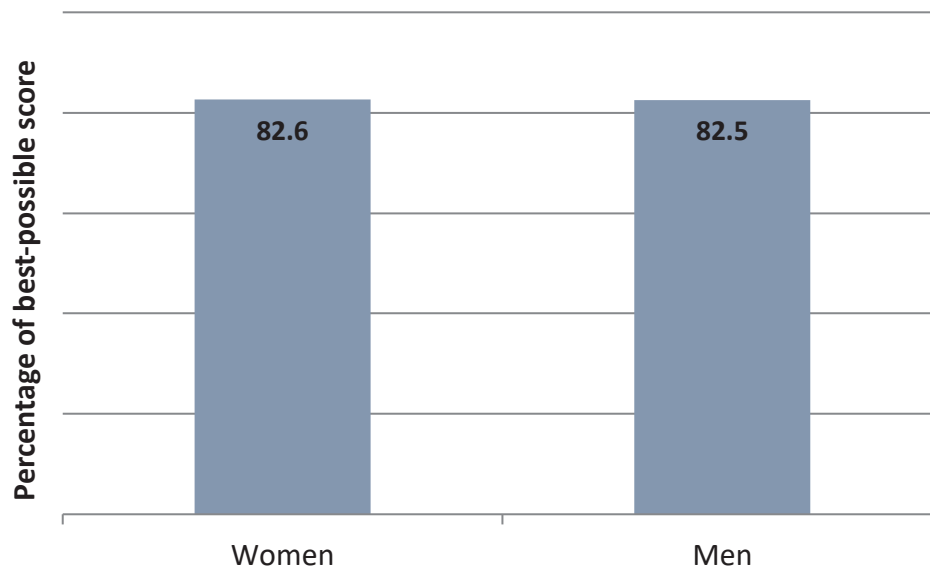
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<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

## Patient Experience

### Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

#### Disparities

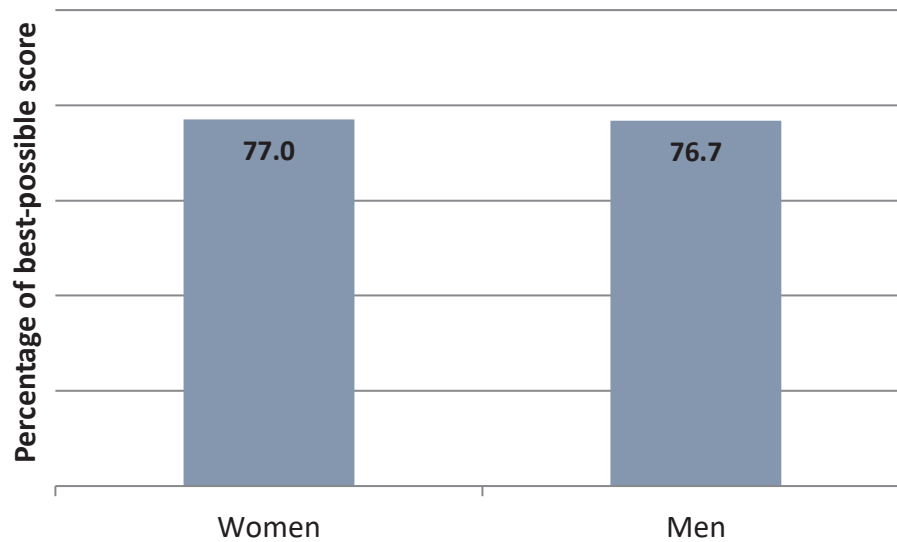
- Women reported experiences getting needed care that were similar to the experiences that men reported.

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<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

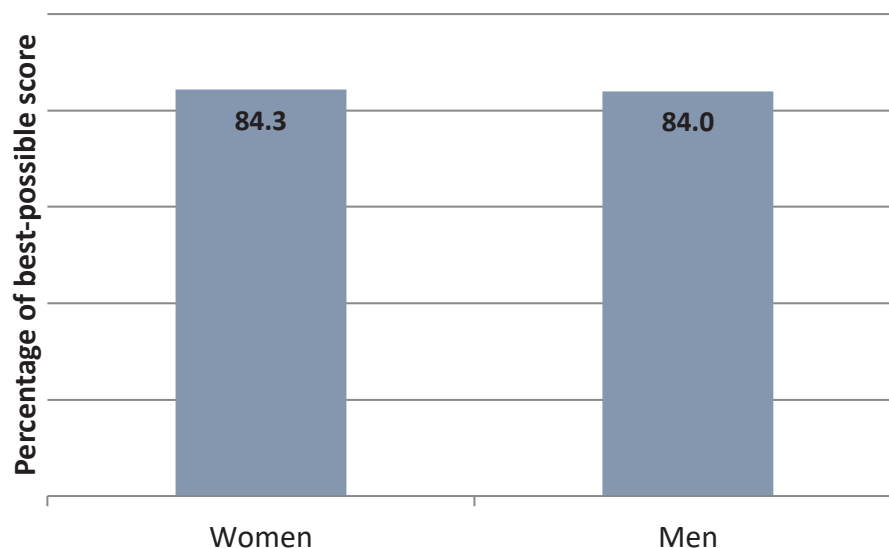
- Women reported experiences with getting appointments and care quickly that were similar to the experiences that men reported.

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<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on three aspects of customer service,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

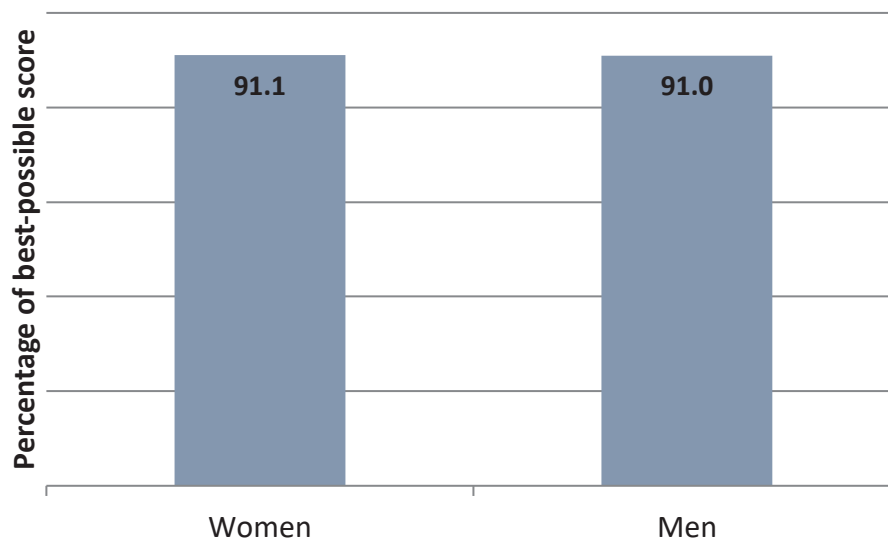
- o Women reported experiences with customer service that were similar to the experiences that men reported.

---

<sup>†</sup> This includes how often in the last six months health plan customer service staff provided the information or the help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

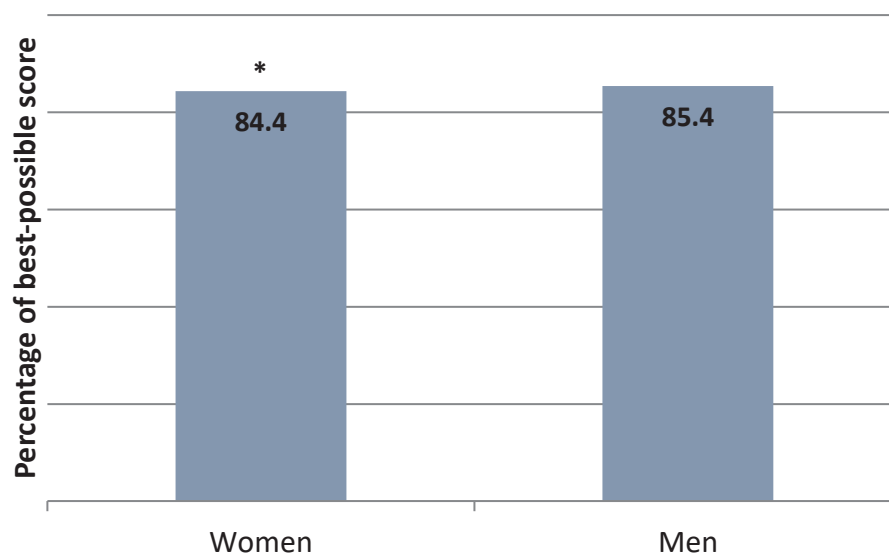
- o Women reported experiences with doctor communication that were similar to the experiences that men reported.

---

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care is coordinated,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

- o Women reported worse<sup>‡</sup> experiences with care coordination than men reported. The difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

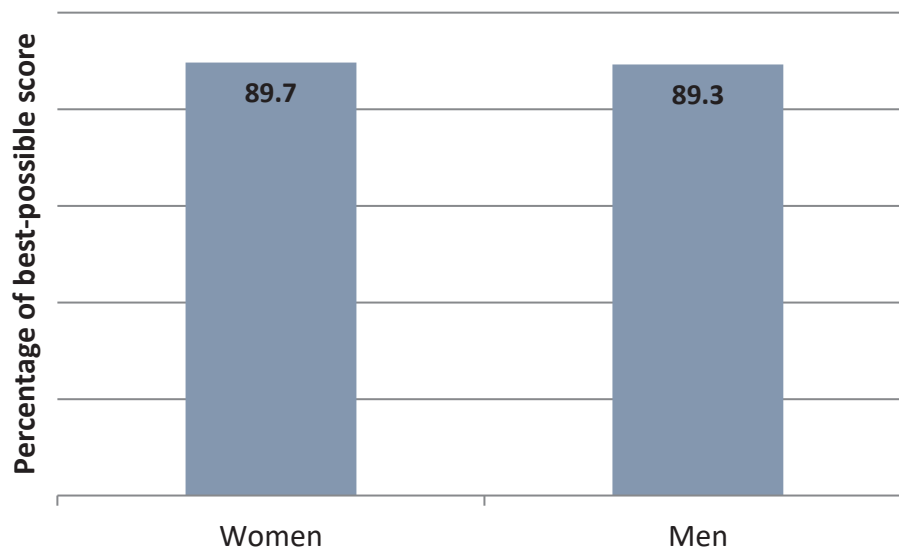
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

<sup>‡</sup> Unlike on page 59, we use the terms *better* or *worse* to describe all statistically significant differences on individual patient experience measures.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

- o Women reported experiences getting needed prescription drugs that were similar to the experiences that men reported.

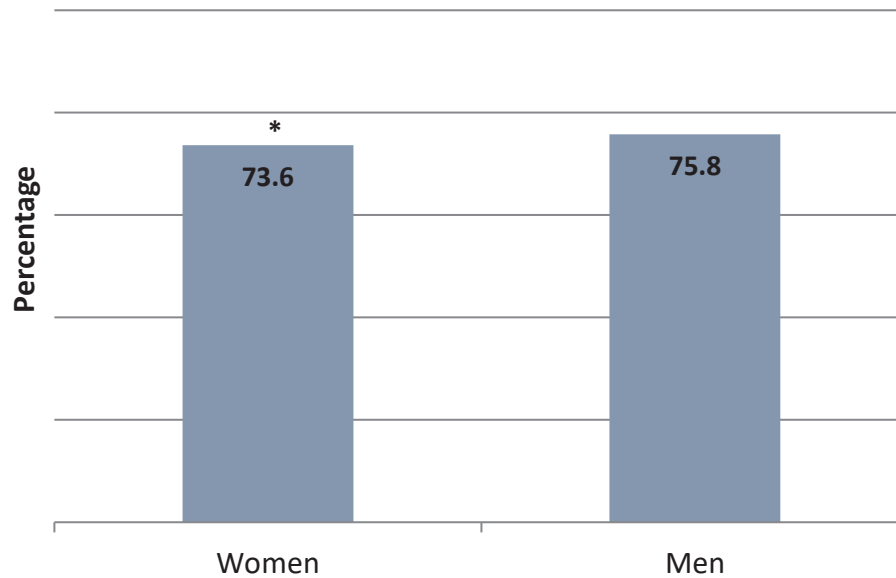
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<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.



## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

### Disparities

- o Women were less likely than men to have received the flu vaccine. The difference between women and men was less than 3 percentage points.

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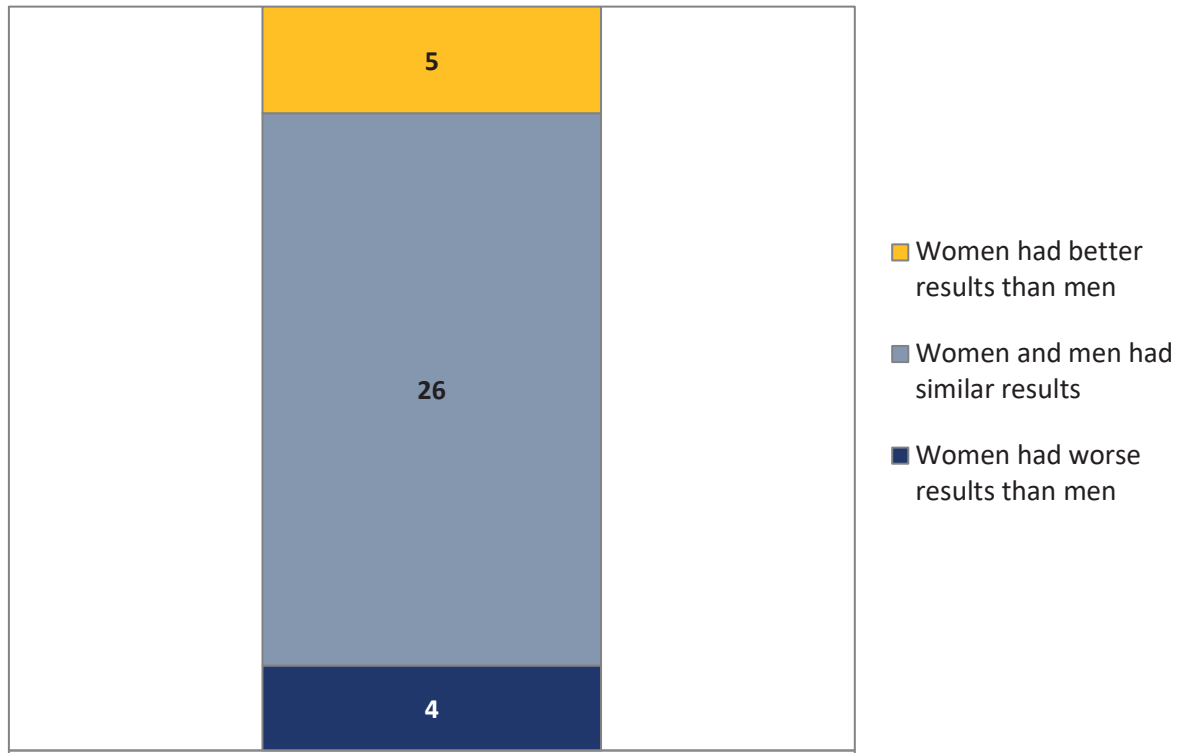
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 35) for which women had results that were worse than, similar to, or better than results for men in 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

The relative difference between men and women is used to assess disparities.

- **Better** = Women received better care than men. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor women.
- **Similar** = Women and men received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Women received worse care than men. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor men.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### Women had worse results than men

- Initiation of AOD dependence treatment
- Avoiding potentially harmful drug-disease interactions in patients with dementia
- Avoiding potentially harmful drug-disease interactions in patients with a history of falls
- Avoiding use of high-risk medications in the elderly

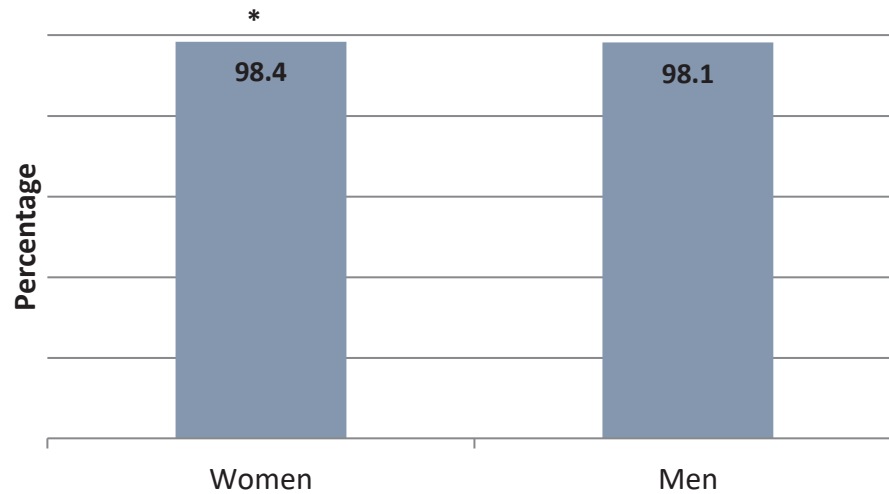
**Women had better results than men**

- Diabetes care—eye exam
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up visit after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)

## Clinical Care: Prevention and Screening

### Adult BMI Assessment

Percentage of MA enrollees aged 18 to 74 years who had an outpatient visit whose body mass index (BMI) was documented in the past two years, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women were more likely than men to have had their BMIs documented. The difference between women and men was less than 3 percentage points.

---

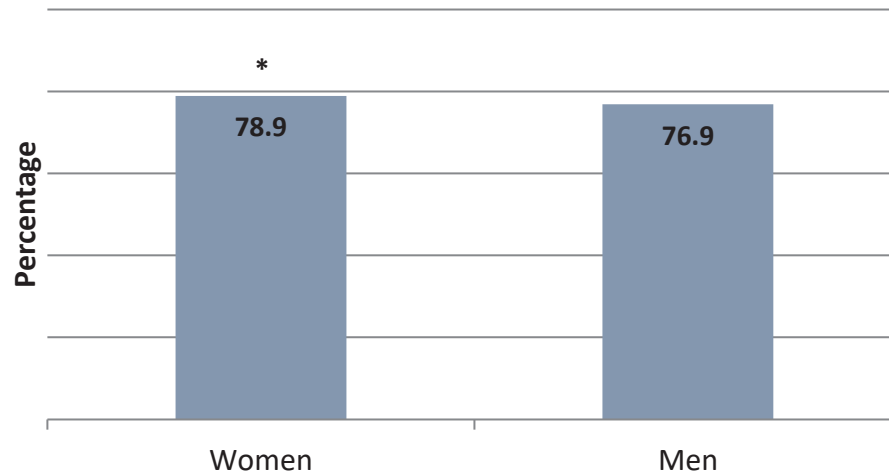
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women were more likely than men to have been appropriately screened for colorectal cancer. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

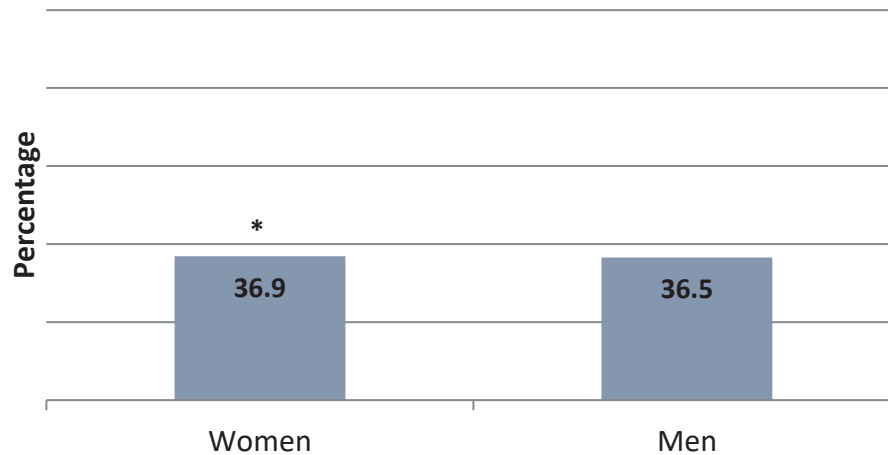
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Respiratory Conditions

### Testing to Confirm COPD

**Percentage of MA enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women with a new diagnosis of COPD or newly active COPD were more likely than men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

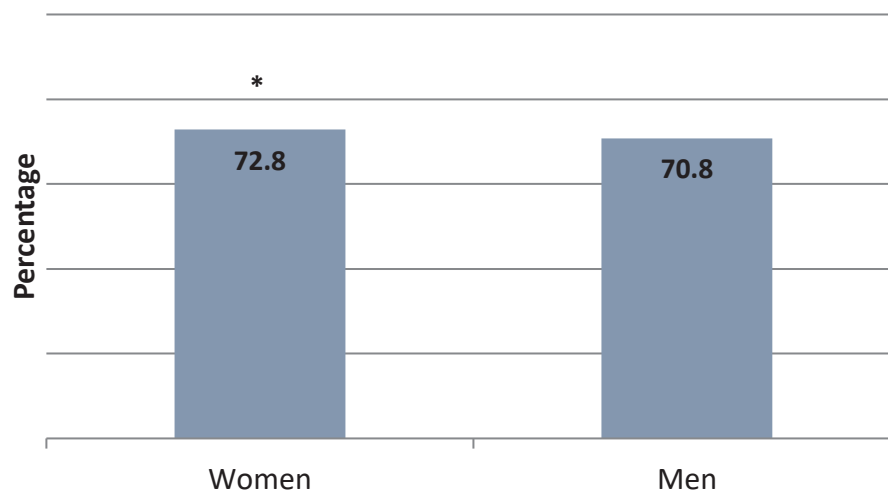
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

**Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between women and men was less than 3 percentage points.

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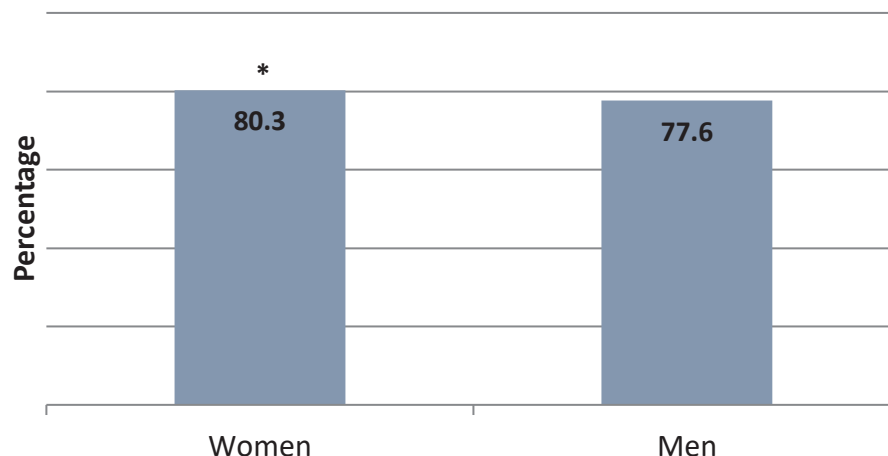
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

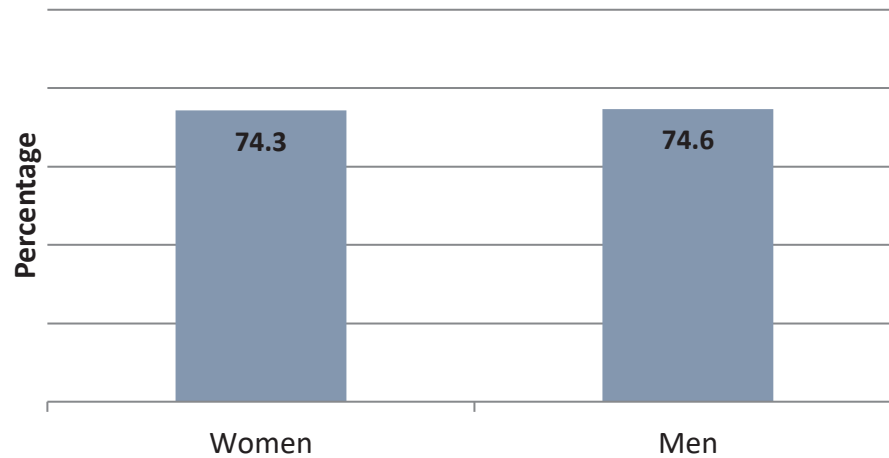
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



## **Clinical Care: Cardiovascular Conditions**

### **Controlling High Blood Pressure**

**Percentage of MA enrollees aged 18 to 85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### **Disparities**

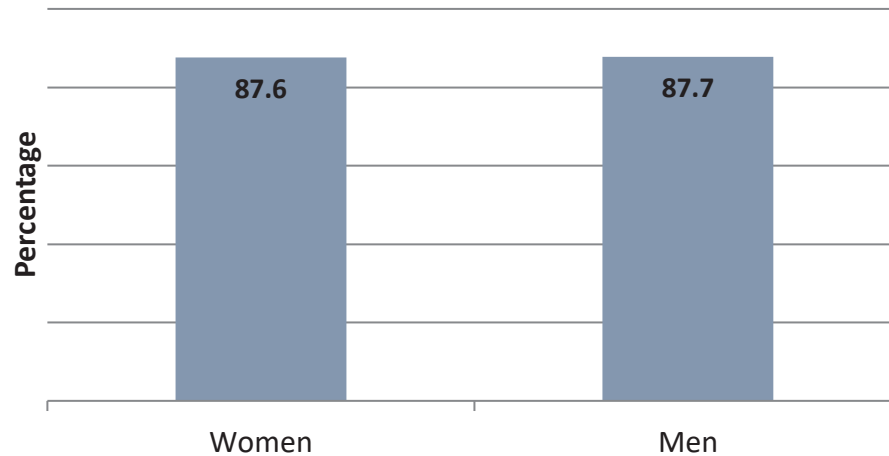
- Women who had a diagnosis of hypertension were about as likely as men who had a diagnosis of hypertension to have had their blood pressure adequately controlled.

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<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged with a diagnosis of acute myocardial infarction (AMI) who received continuous beta-blocker treatment for six months after discharge, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

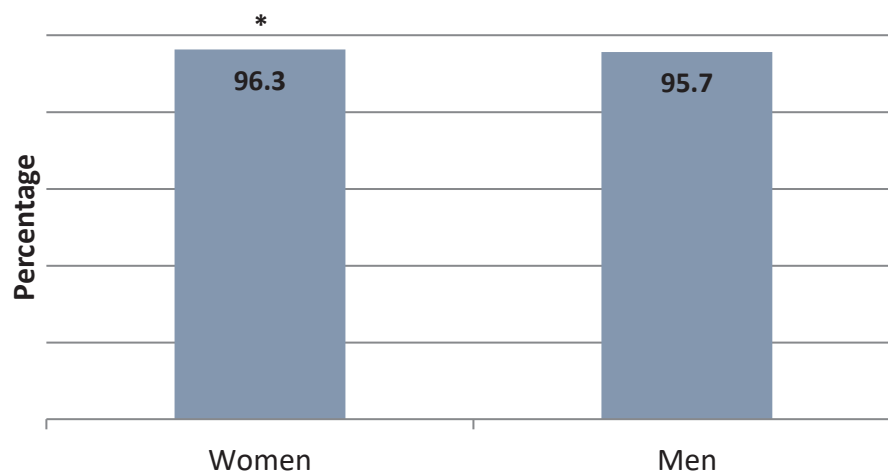
### Disparities

- Women who were hospitalized for a heart attack were about as likely as men who were hospitalized for a heart attack to have received continuous beta-blocker treatment.

## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by gender, 2019



**NOTE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- o Women with diabetes were more likely than men with diabetes to have had their blood sugar tested at least once in the past year. The difference between women and men was less than 3 percentage points.

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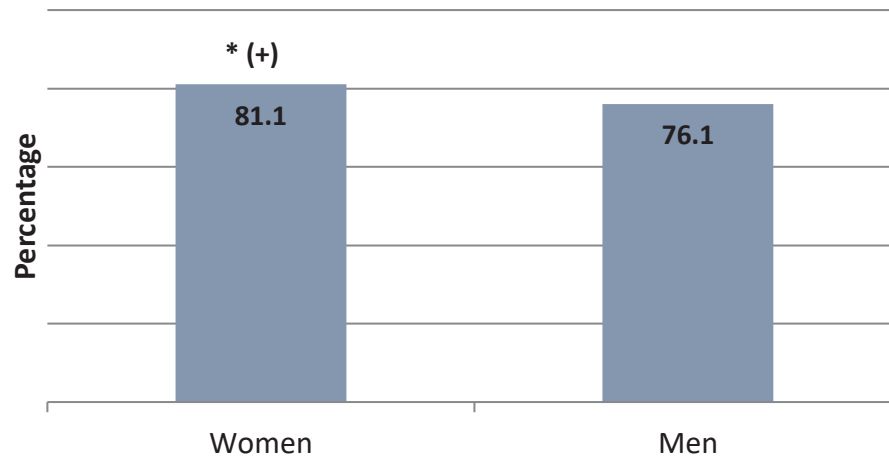
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Diabetes Care—Eye Exam

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have had an eye exam in the past year. The difference between women and men was greater than 3 percentage points.

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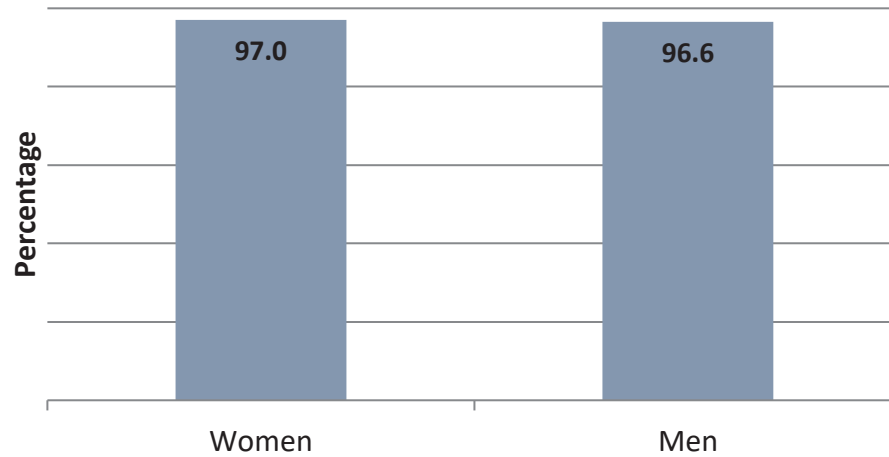
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Diabetes Care—Kidney Disease Monitoring

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by gender, 2019



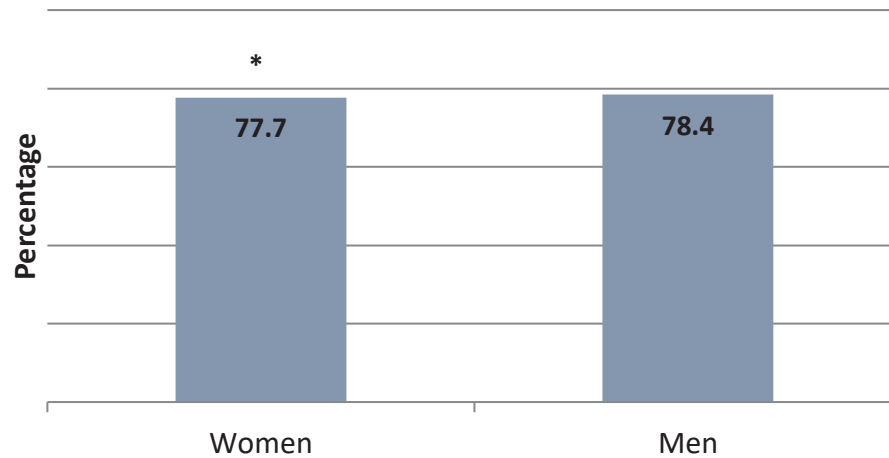
**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women with diabetes were about as likely as men with diabetes to have had medical attention for nephropathy in the past year.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by gender, 2019



**NOTE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with diabetes were less likely than men with diabetes to have their blood pressure under control. The difference between women and men was less than 3 percentage points.

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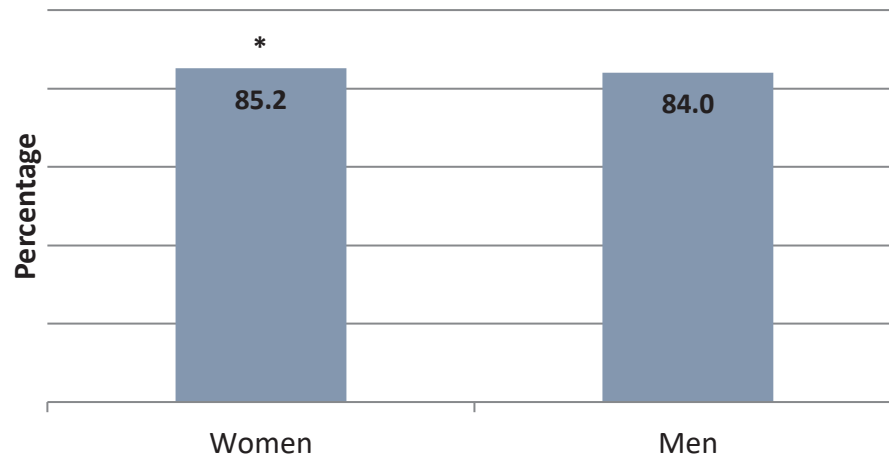
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have their blood sugar levels under control. The difference between women and men was less than 3 percentage points.

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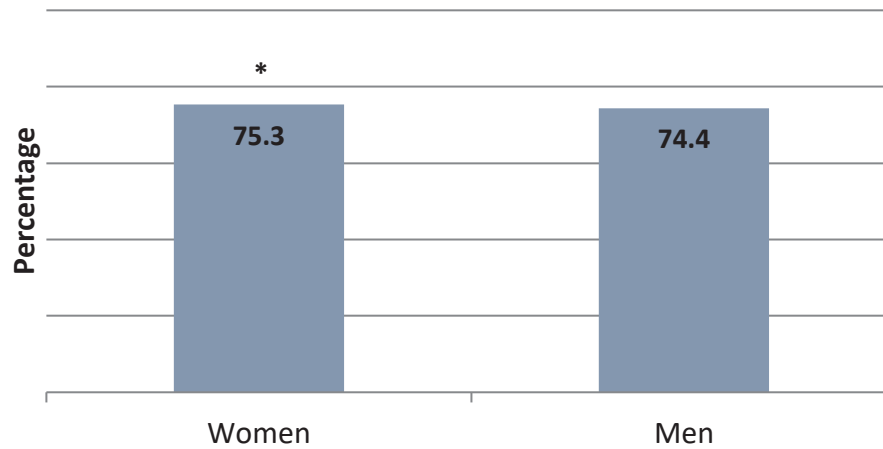
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by gender, 2019



**NOTE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have received statin therapy. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

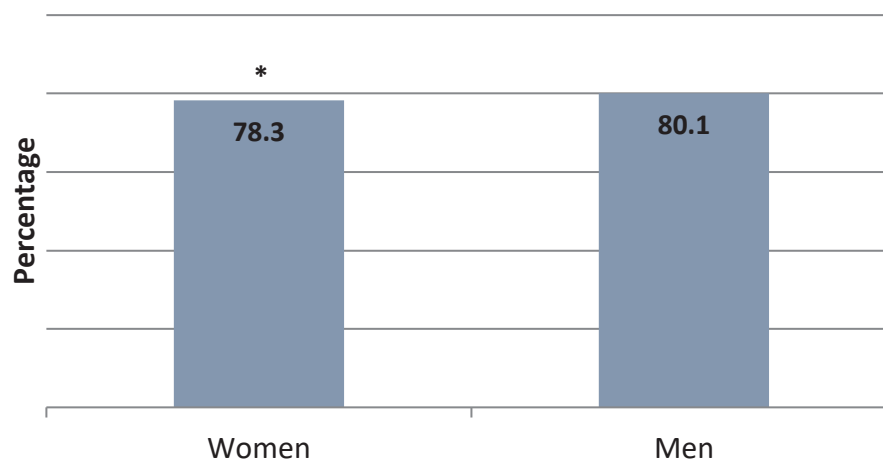
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Excludes those who also have clinical ASCVD.



### Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women with diabetes were less likely than men with diabetes to have had proper statin medication adherence. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

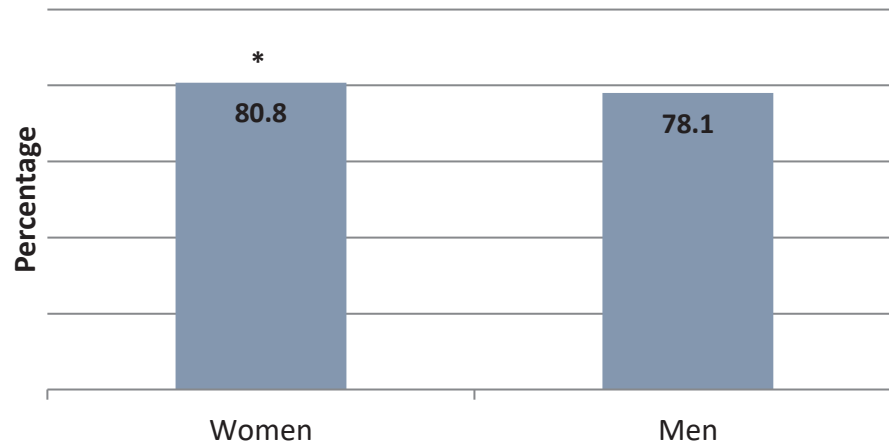
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## **Clinical Care: Musculoskeletal Conditions**

### **Rheumatoid Arthritis Management**

**Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a DMARD, by gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### **Disparities**

- Women who were diagnosed with rheumatoid arthritis were more likely than men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

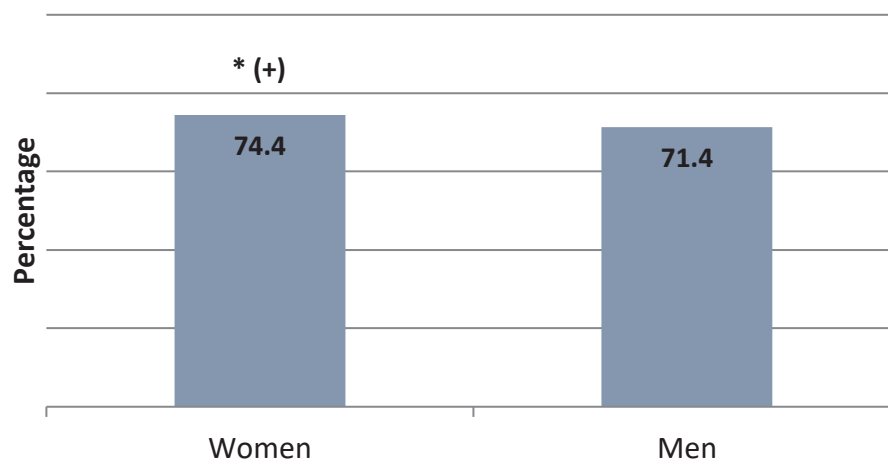
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

**Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. The difference between women and men was greater than 3 percentage points.

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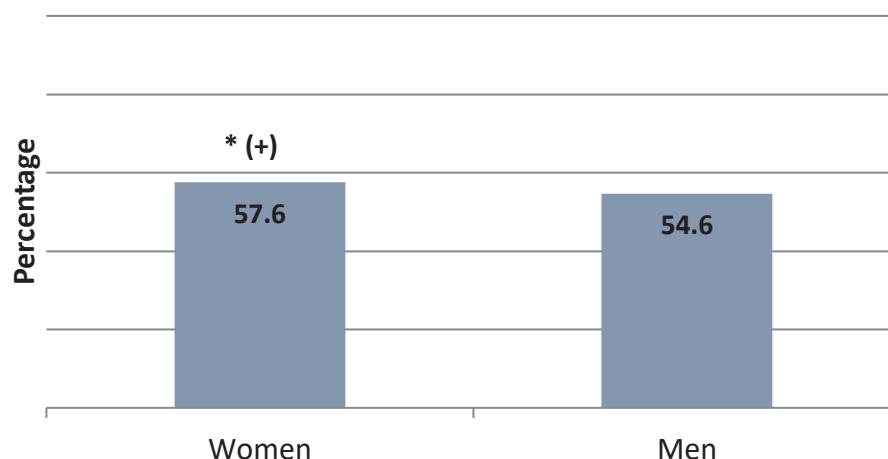
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on antidepressant medication for at least 180 days, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. The difference between women and men was greater than 3 percentage points.

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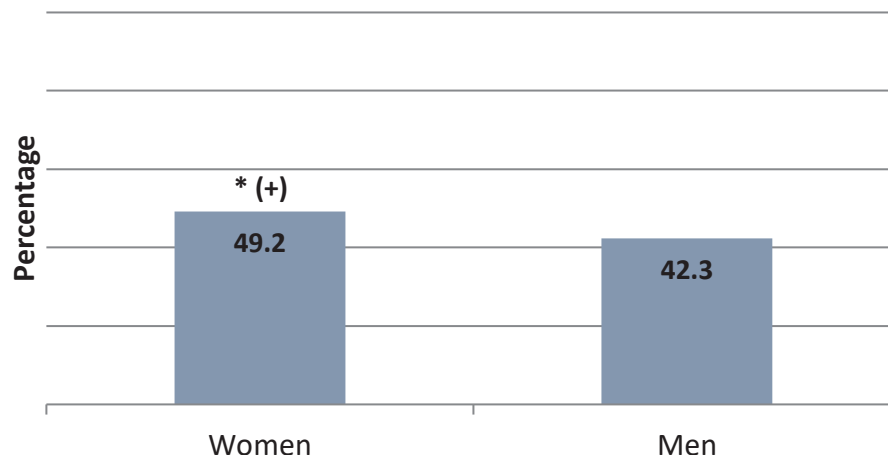
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

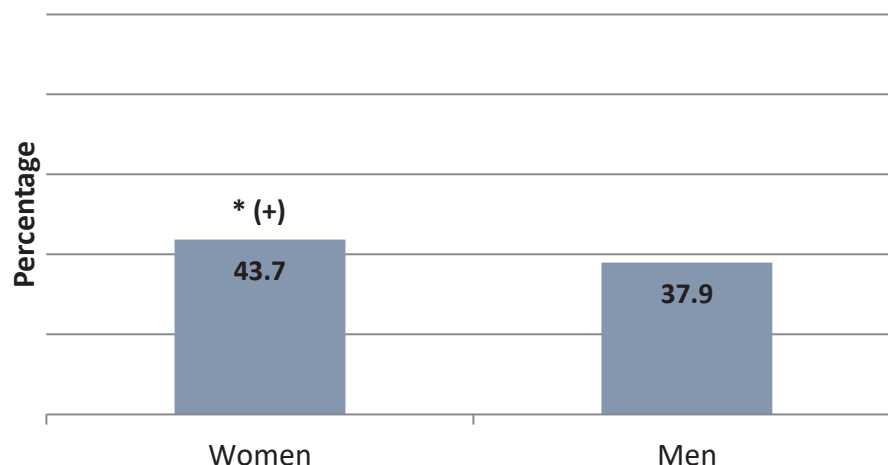
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women who had an ED visit for a mental health disorder were more likely than men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

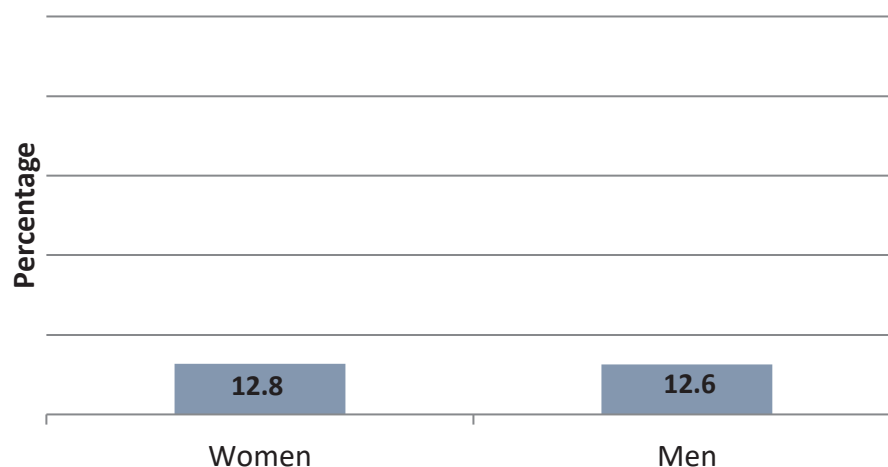
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

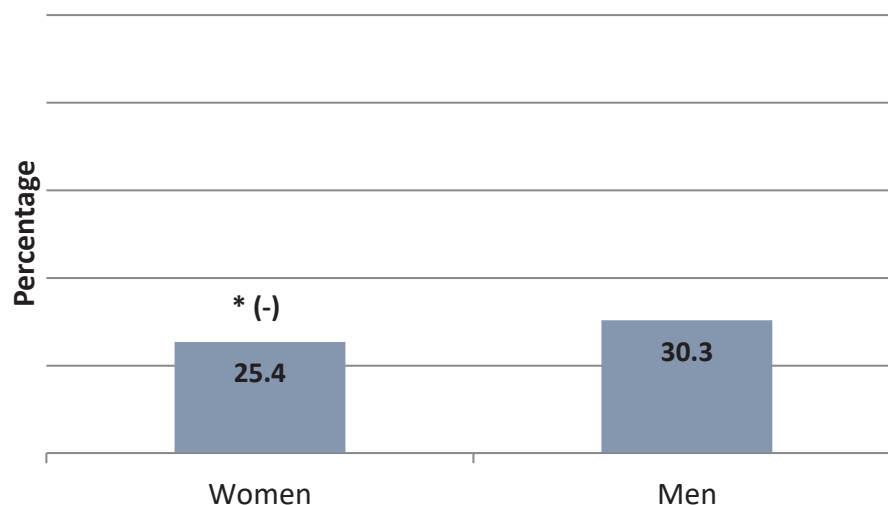
### Disparities

- Women who had an ED visit for AOD abuse or dependence were about as likely as men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of being discharged.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with a new episode of AOD dependence were less likely than men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

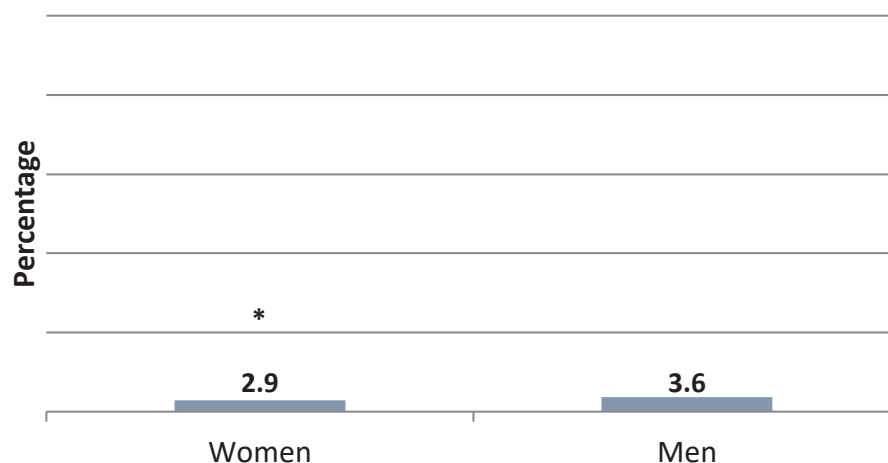
<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.



## Engagement of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with a new episode of AOD dependence who initiated treatment were less likely than men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

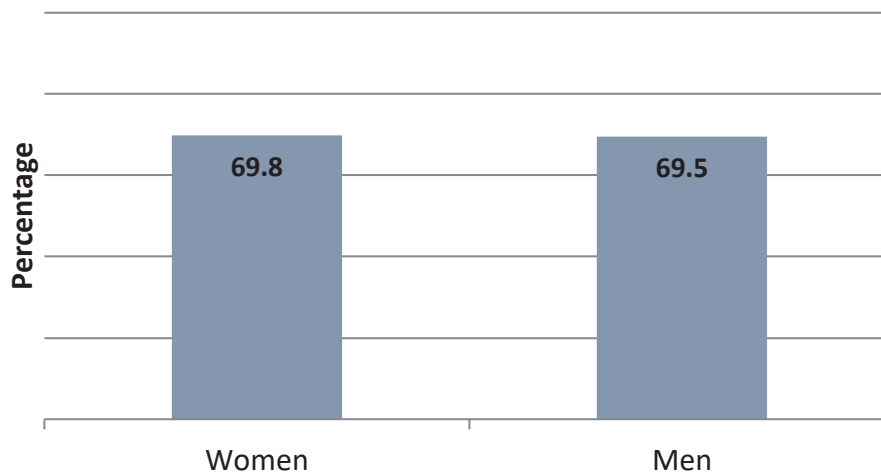
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## **Clinical Care: Medication Management and Care Coordination**

### **Medication Reconciliation After Hospital Discharge**

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by gender, 2019



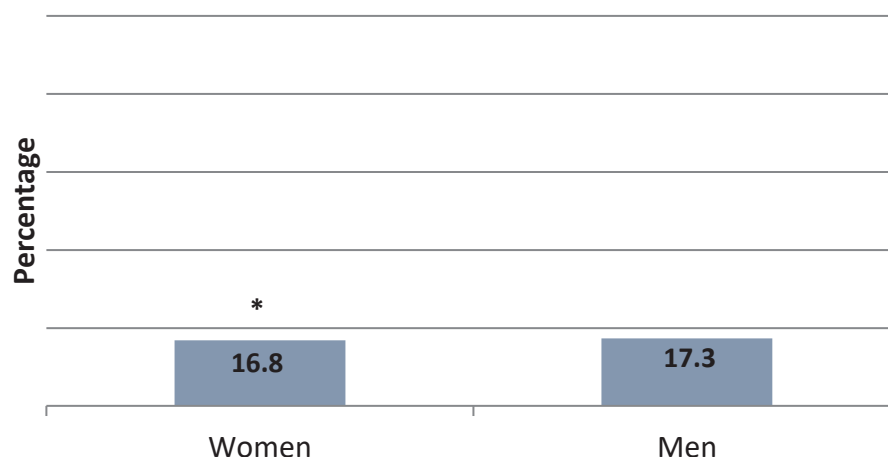
**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### **Disparities**

- o Women who were discharged from an inpatient facility were about as likely as men who were discharged from an inpatient facility to have had their medications reconciled within 30 days.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- The primary or ongoing care providers of women who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of men who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. The difference between these groups was less than 3 percentage points.

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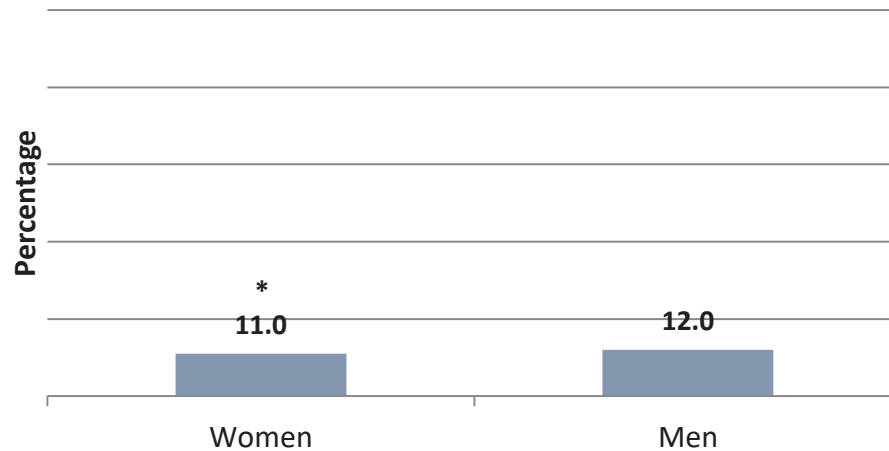
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between women and men was less than 3 percentage points.

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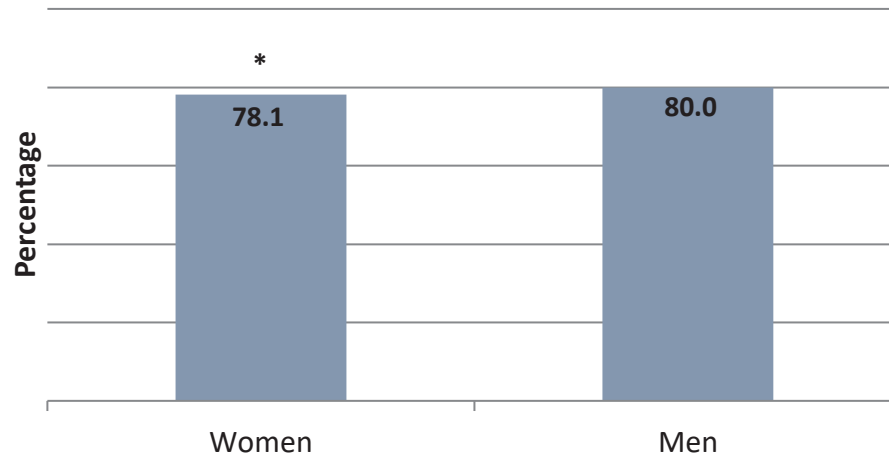
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between women and men was less than 3 percentage points.

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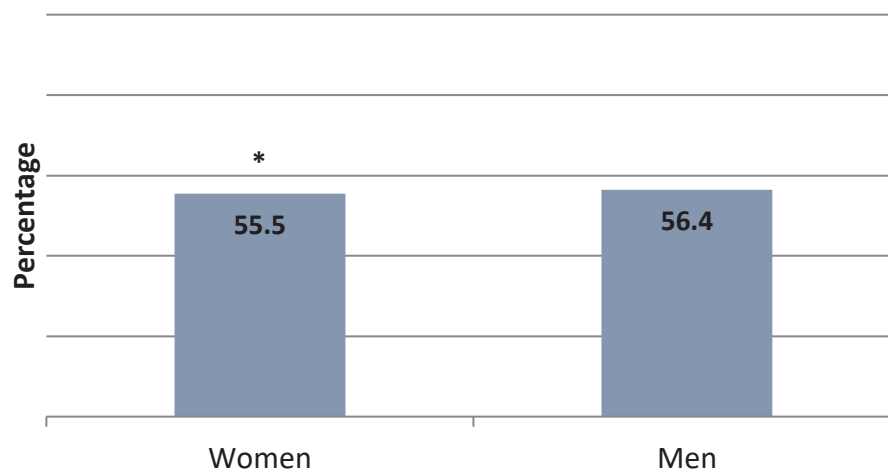
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Women with multiple high-risk chronic conditions were less likely than men with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

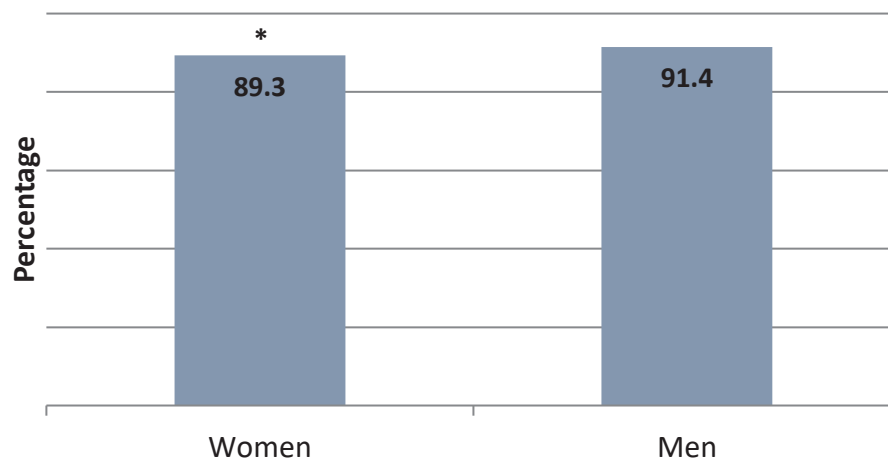
(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.

## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly women with chronic renal failure than for elderly men with chronic renal failure. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

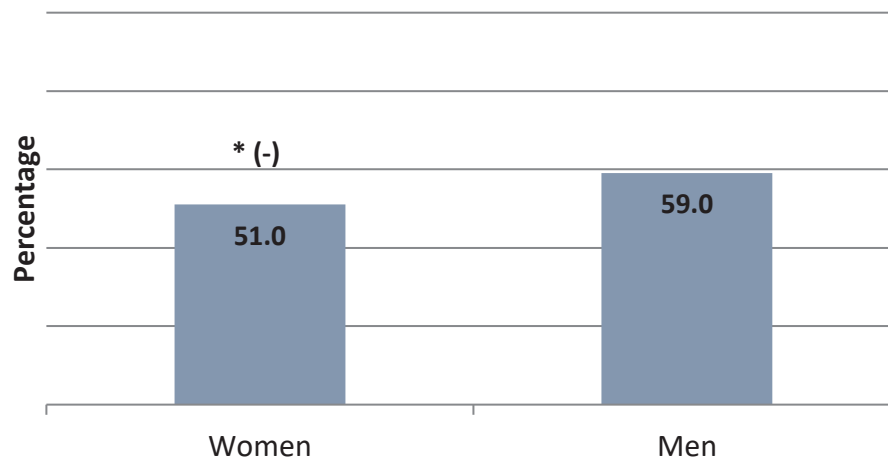
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes cyclooxygenase-2 selective NSAIDs or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Use of potentially harmful medication was avoided less often for elderly women with dementia than for elderly men with dementia. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

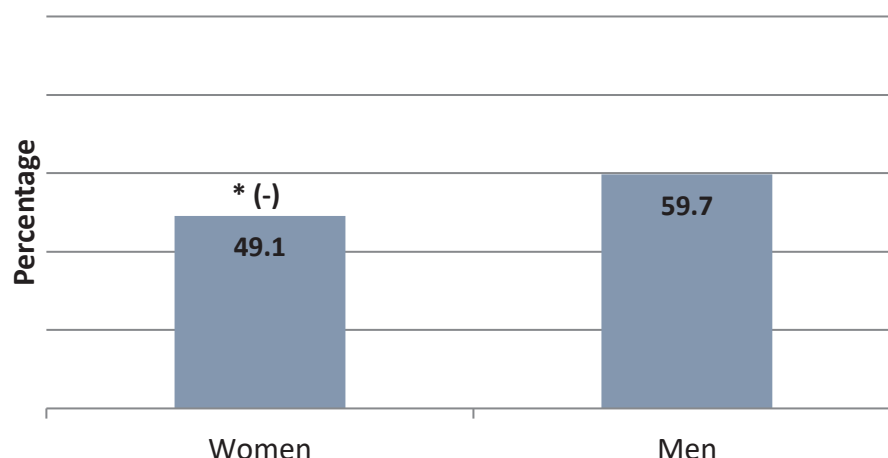
(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.



## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly women with a history of falls than for elderly men with a history of falls. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

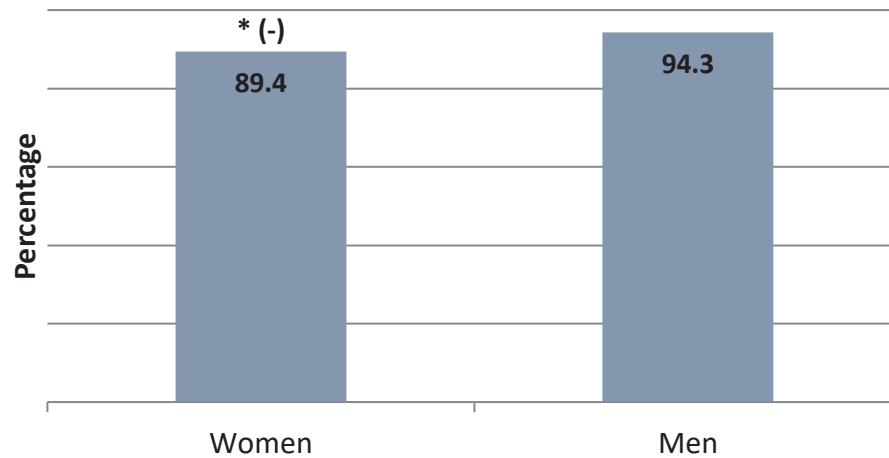
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- Use of high-risk medication was avoided less often for women than for men. The difference between women and men was greater than 3 percentage points.

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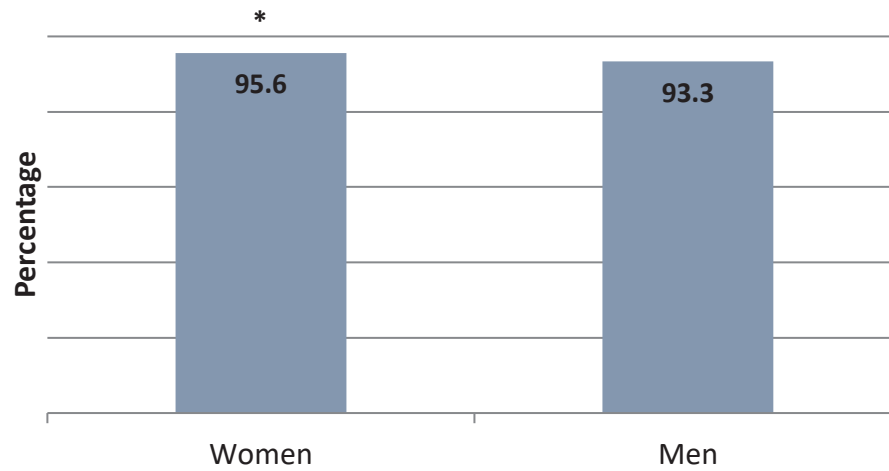
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Use of opioids at a high dosage for more than 14 days was avoided more often for women than for men. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

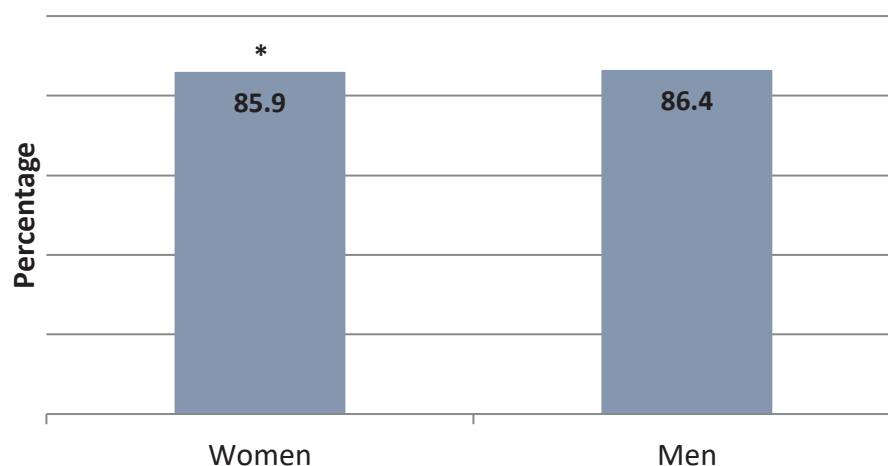
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Average morphine equivalent dose > 120 mg.

### Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- o Use of opioids from multiple prescribers was avoided less often for women than for men. The difference between women and men was less than 3 percentage points.

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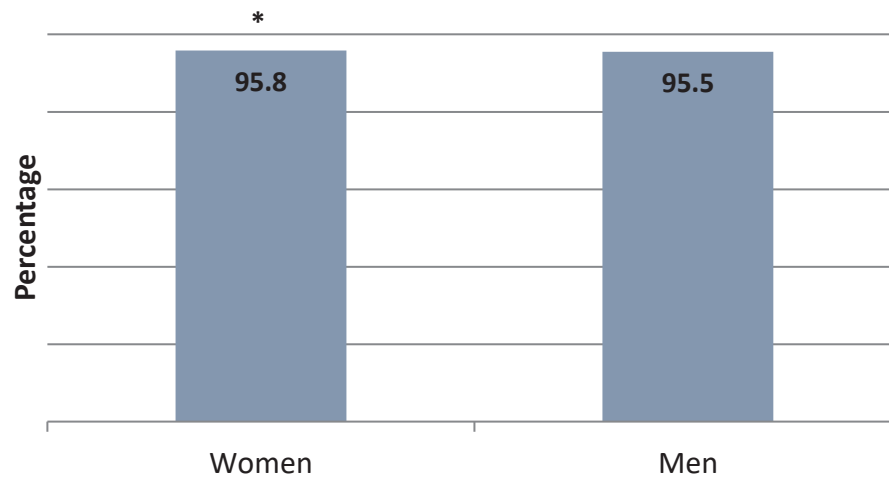
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

### Disparities

- o Use of opioids from multiple pharmacies was avoided more often for women than for men. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

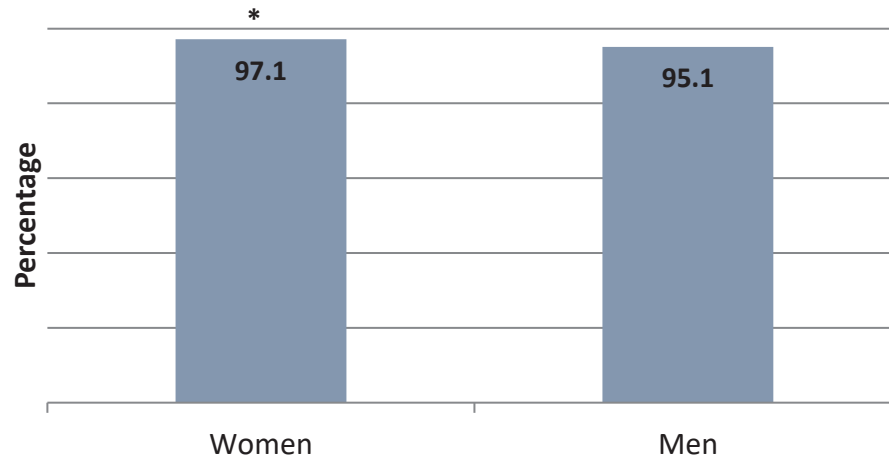
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

#### Disparities

- o Women were more likely than men to have had an ambulatory or preventive care visit. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

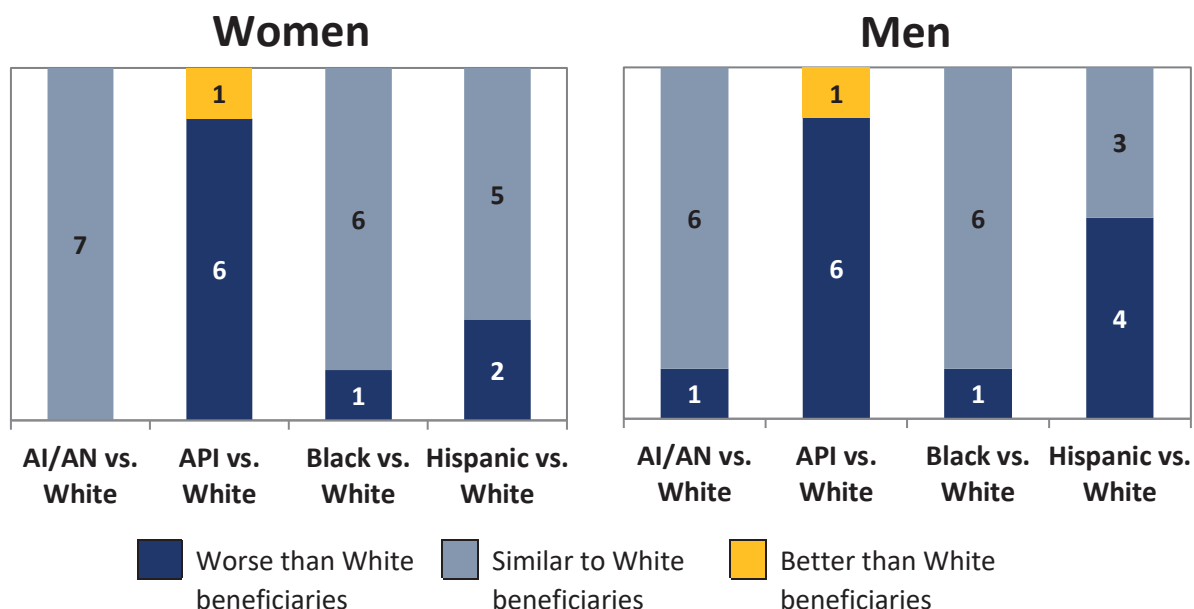
# SECTION III:

## Racial and Ethnic Differences by Gender in Health Care in Medicare Advantage



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which women and men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women and men in 2019



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2019 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

Within each gender, the relative difference between a selected group and White beneficiaries is used to assess disparities.

- **Better** = Population received better care than White beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and White beneficiaries received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than White beneficiaries. Differences are statistically significant, equal to or larger than 3 points on a 0–100 scale, and favor White beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).



**API women had worse results than White women**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API women had better results than White women**

- Annual flu vaccine

**Black women had worse results than White women**

- Annual flu vaccine

**Hispanic women had worse results than White women**

- Getting appointments and care quickly
- Annual flu vaccine

**AI/AN men had worse results than White men**

- Getting needed prescription drugs

**API men had worse results than White men**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API men had better results than White men**

- Annual flu vaccine

**Black men had worse results than White men**

- Annual flu vaccine

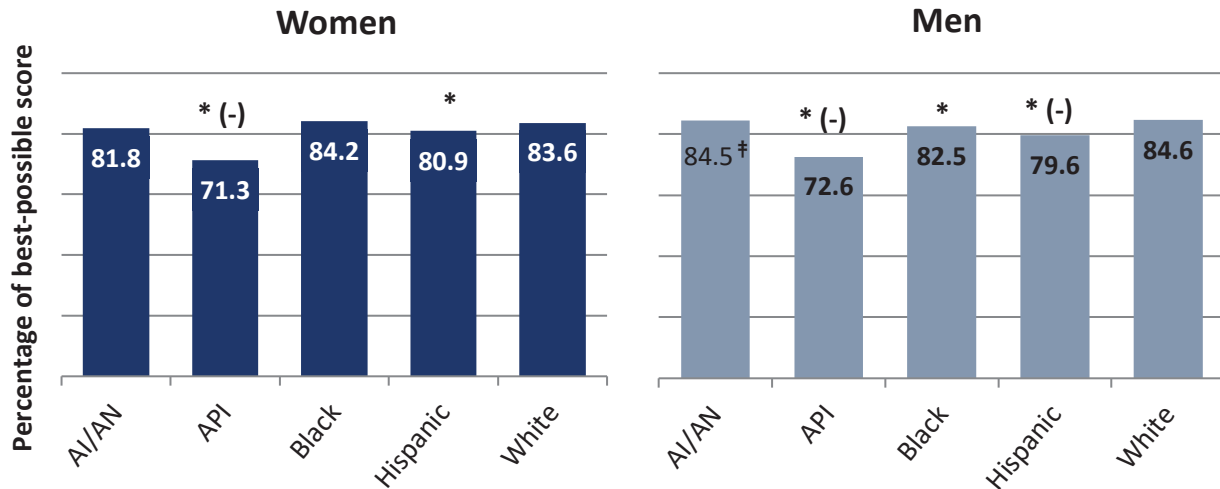
**Hispanic men had worse results than White men**

- Getting needed care
- Getting appointments and care quickly
- Care coordination
- Annual flu vaccine

## Patient Experience

### Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

#### Disparities

- API and Hispanic women reported experiences with getting needed care that were worse<sup>§</sup> than the experiences that White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. The difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences with getting needed care that were similar to the experiences that White women reported.
- API, Black, and Hispanic men reported experiences with getting needed care that were worse than the experiences that White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale, as was the difference between Hispanic men and White men. The difference between Black men and White men was less than 3 points on a 0–100 scale. AI/AN men reported experiences with getting needed care that were similar to the experiences that White men reported.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

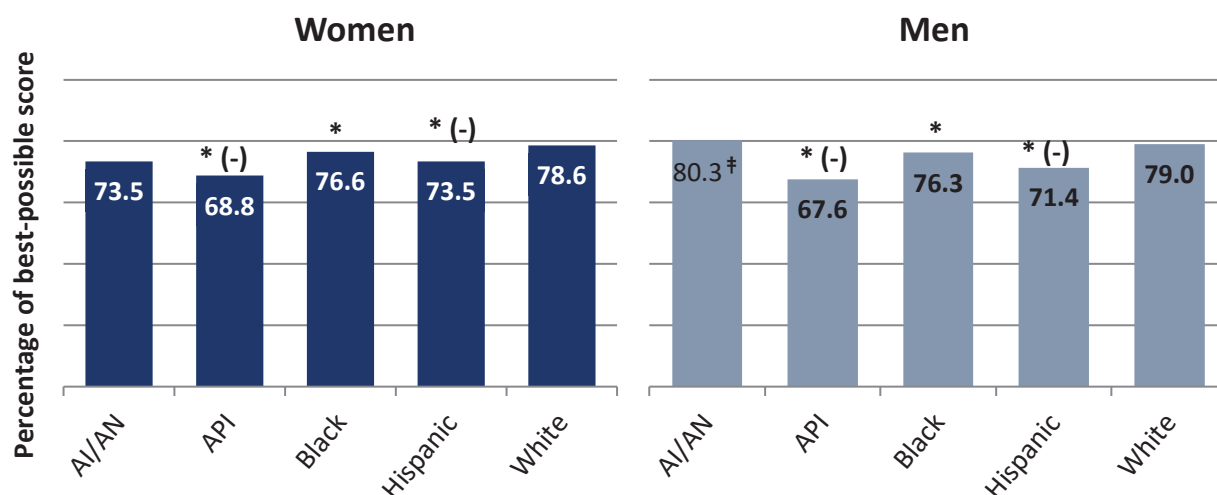
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>§</sup> Unlike on pages 105–106, we use the terms *better* or *worse* to describe all statistically significant differences on individual patient experience measures.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

### Disparities

- AI/AN women reported experiences with getting appointments and care quickly that were similar to the experiences that White women reported. API, Black, and Hispanic women reported experiences with getting appointments and care quickly that were worse than the experiences that White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale, as was the difference between Hispanic women and White women. The difference between Black women and White women was less than 3 points on a 0–100 scale.
- AI/AN men reported experiences with getting appointments and care quickly that were similar to the experiences that White men reported. API, Black, and Hispanic men reported experiences with getting appointments and care quickly that were worse than the experiences that White men reported. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. The difference between Black men and White men was less than 3 percentage points.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

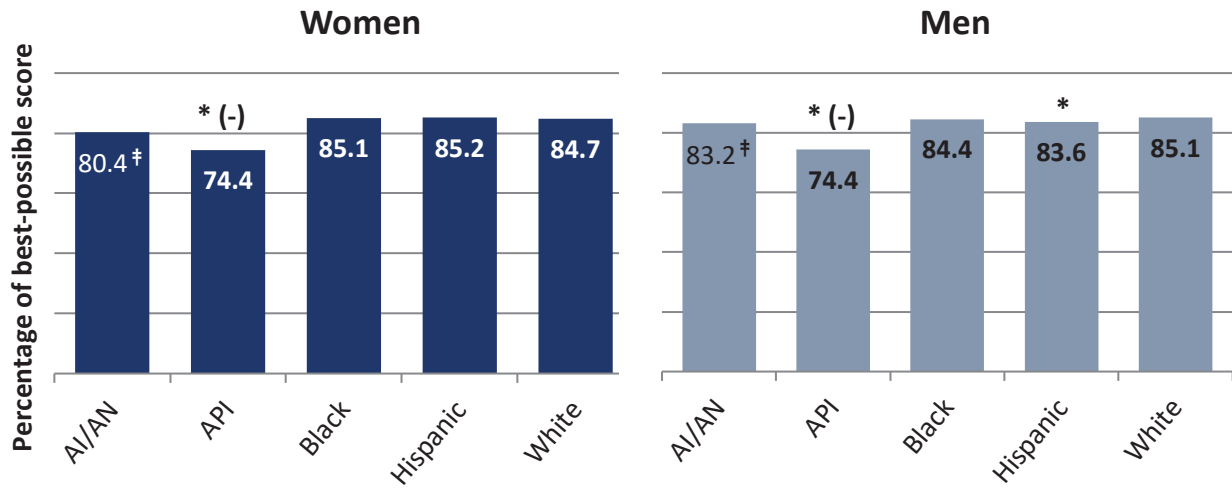
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on three aspects of customer service,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

† These scores are based on fewer than 400 completed measures, and thus their precision may be low.

### Disparities

- AI/AN, Black, and Hispanic women reported experiences with customer service that were similar to the experiences that White women reported. API women reported experiences with customer service that were worse than the experiences that White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale.
- AI/AN and Black men reported experiences with customer service that were similar to the experiences that White men reported. API men and Hispanic men reported experiences with customer service that were worse than the experiences that White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. The difference between Hispanic men and White men was less than 3 points on a 0–100 scale.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

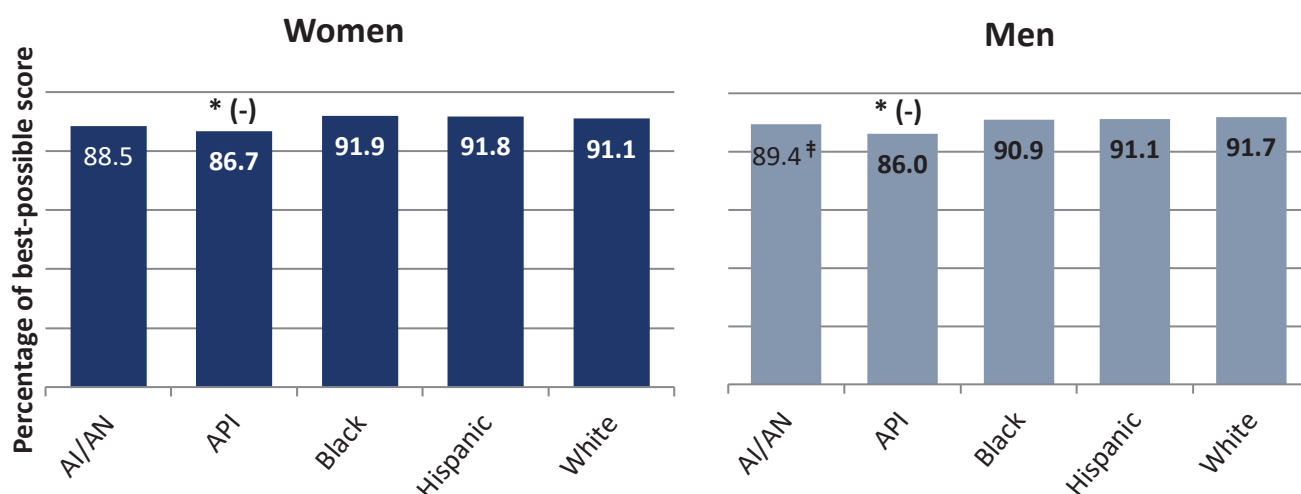
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

† This includes how often in the last six months health plan customer service staff provided the information or help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>‡</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

### Disparities

- AI/AN, Black, and Hispanic women reported experiences with doctor communication that were similar to the experiences that White women reported. API women reported experiences with doctor communication that were worse than the experiences that White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale.
- AI/AN, Black, and Hispanic men reported experiences with doctor communication that were similar to the experiences that White men reported. API men reported experiences with doctor communication that were worse than the experiences that White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

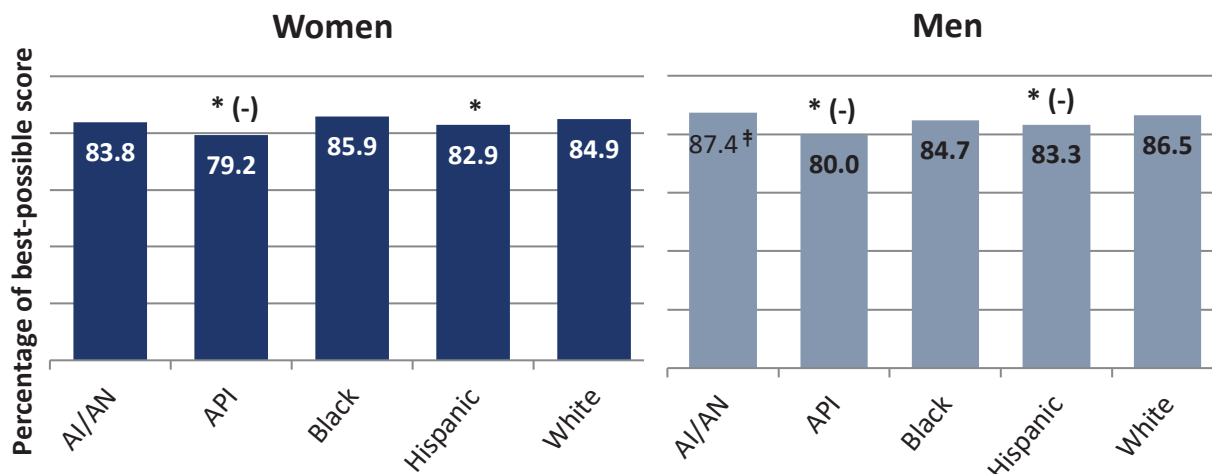
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care was coordinated,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

### Disparities

- AI/AN and Black women reported experiences with care coordination that were similar to the experiences that White women reported. API and Hispanic women reported experiences with care coordination that were worse than the experiences that White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale. The difference between Hispanic women and White women was less than 3 points on a 0–100 scale.
- AI/AN and Black men reported experiences with care coordination that were similar to the experiences that White men reported. API and Hispanic men reported experiences with care coordination that were worse than the experiences that White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

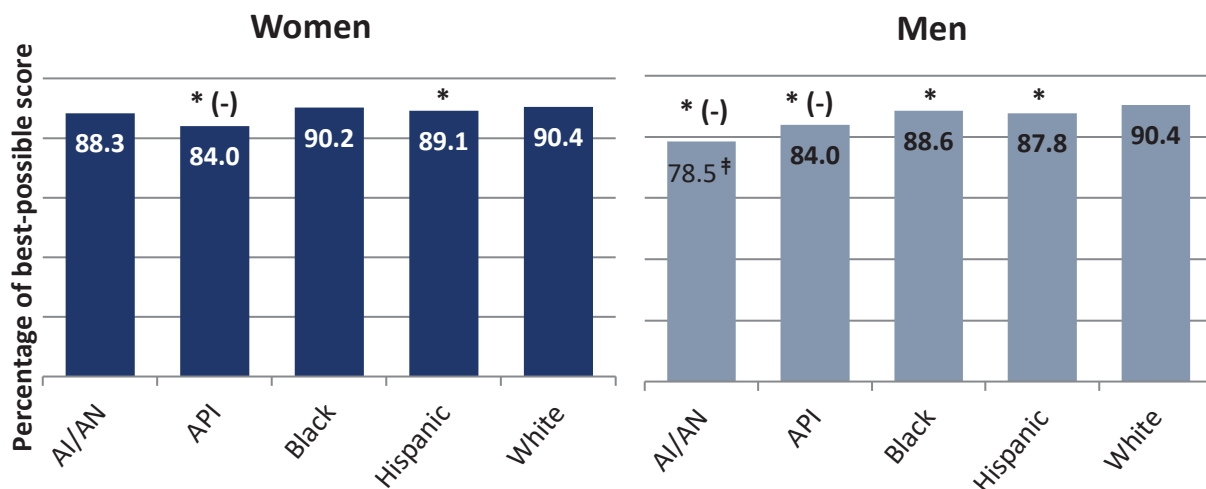
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>‡</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

### Disparities

- AI/AN and Black women reported experiences with getting needed prescription drugs that were similar to the experiences that White women reported. API and Hispanic women reported experiences with getting needed prescription drugs that were worse than the experiences that White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale. The difference between Hispanic women and White women was less than 3 points on a 0–100 scale.
- AI/AN, API, Black, and Hispanic men reported experiences with getting needed prescription drugs that were worse than the experiences that White men reported. The difference between AI/AN men and White men was greater than 3 points on a 0–100 scale, as was the difference between API men and White men. The difference between Black men and White men was less than 3 points on a 0–100 scale, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

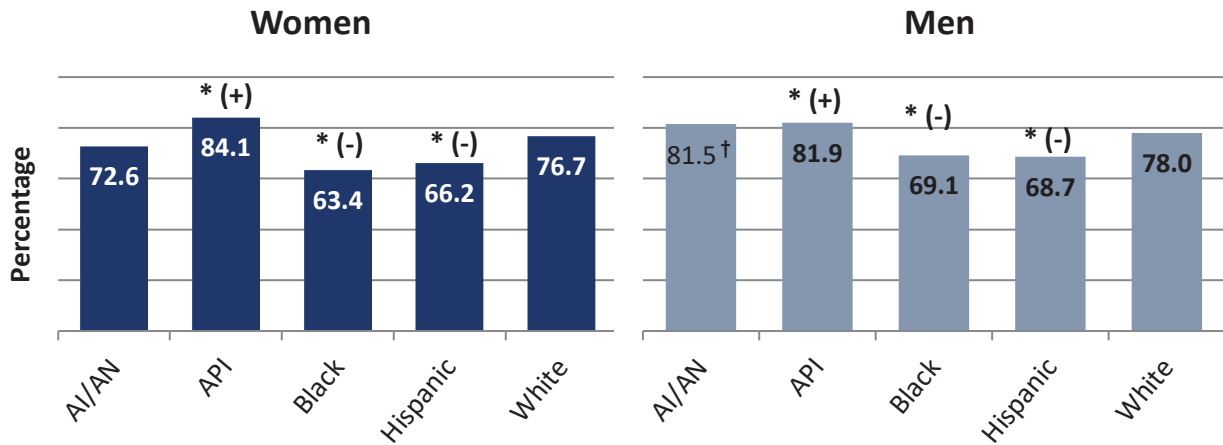
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot),  
by race and ethnicity within gender, 2019



**SOURCE:** Data from the Medicare CAHPS survey, 2019.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed measures, and thus its precision may be low.

### Disparities

- AI/AN women were about as likely as White women to have received the flu vaccine. API women were more likely than White women to have received the flu vaccine. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women were less likely than White women to have received the flu vaccine. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- AI/AN men were about as likely as White men to have received the flu vaccine. API men were more likely than White men to have received the flu vaccine. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have received the flu vaccine. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

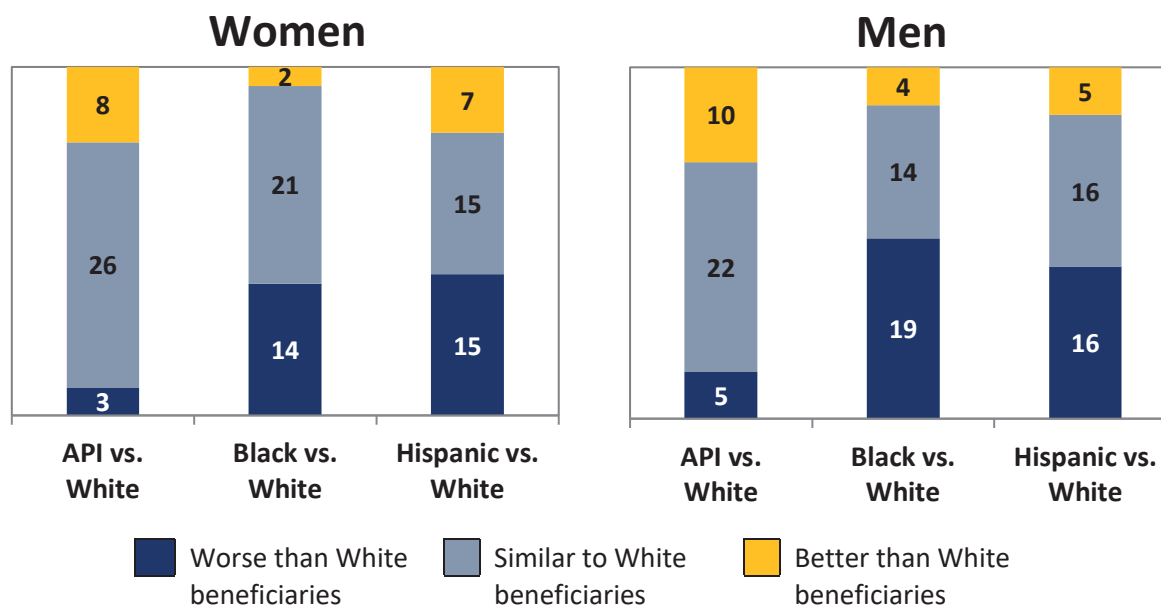
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 37) for which women and men of selected racial and ethnic minority groups had results that were worse than, similar to, or better than results for White women and men in 2019



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic.

Hispanic ethnicity includes all races.

Within each gender, the relative difference between a selected group and White beneficiaries is used to assess disparities.

- **Better** = Population received better care than White beneficiaries. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and White beneficiaries received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than White beneficiaries. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor White beneficiaries.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### API women had worse results than White women

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of AOD dependence treatment

**API women had better results than White women**

- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of high-risk medications in the elderly

**Black women had worse results than White women**

- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Transitions of care—notification of inpatient admission
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black women had better results than White women**

- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic women had worse results than White women**

- Pharmacotherapy management of COPD exacerbation—systemic corticosteroid
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Initiation of AOD dependence treatment
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding use of opioids from multiple pharmacies

**Hispanic women had better results than White women**

- Colorectal cancer screening
- Testing to confirm COPD
- Controlling high blood pressure
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Statin use in patients with diabetes
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**API men had worse results than White men**

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of AOD dependence treatment
- Medication reconciliation after hospital discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**API men had better results than White men**

- Pharmacotherapy management of COPD exacerbation—systemic corticosteroid
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Controlling high blood pressure
- Statin use in patients with cardiovascular disease
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of opioids at high dosage

**Black men had worse results than White men**

- Pharmacotherapy management of COPD exacerbation—systemic corticosteroid
- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Rheumatoid arthritis management
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Transitions of care—patient engagement after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black men had better results than White men**

- Pharmacotherapy management of COPD exacerbation—bronchodilator
- Initiation of AOD dependence treatment
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic men had worse results than White men**

- Pharmacotherapy management of COPD exacerbation—systemic corticosteroid
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Initiation of AOD dependence treatment
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding use of opioids from multiple pharmacies

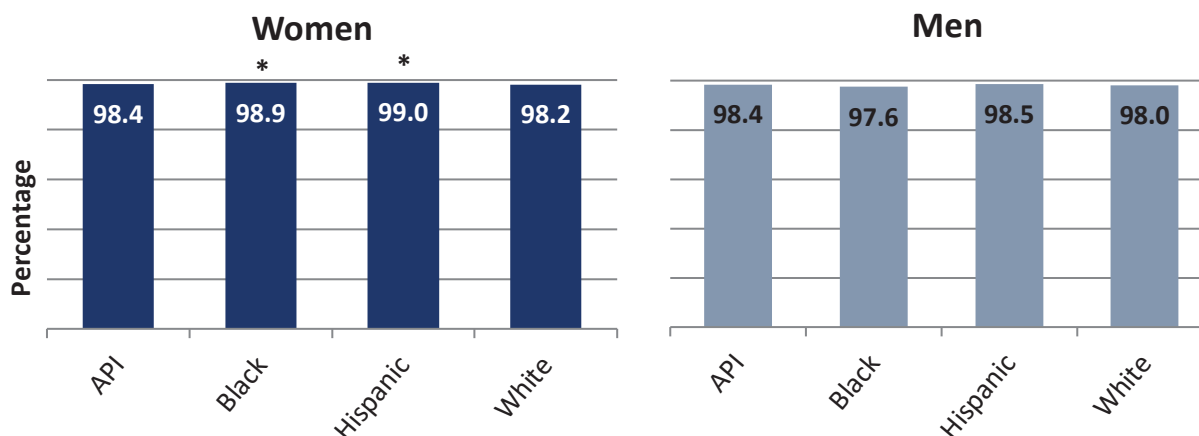
**Hispanic men had better results than White men**

- Testing to confirm COPD
- Diabetes care—eye exam
- Statin use in patients with diabetes
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Avoiding use of opioids at high dosage

## Clinical Care: Prevention and Screening

### Adult Body Mass Index Assessment

**Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit whose BMI was documented in the past two years, by race and ethnicity within gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women were about as likely as White women to have had their BMIs documented. Black and Hispanic women were more likely than White women to have had their BMIs documented. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- API, Black, and Hispanic men were about as likely as White men to have had their BMIs documented.

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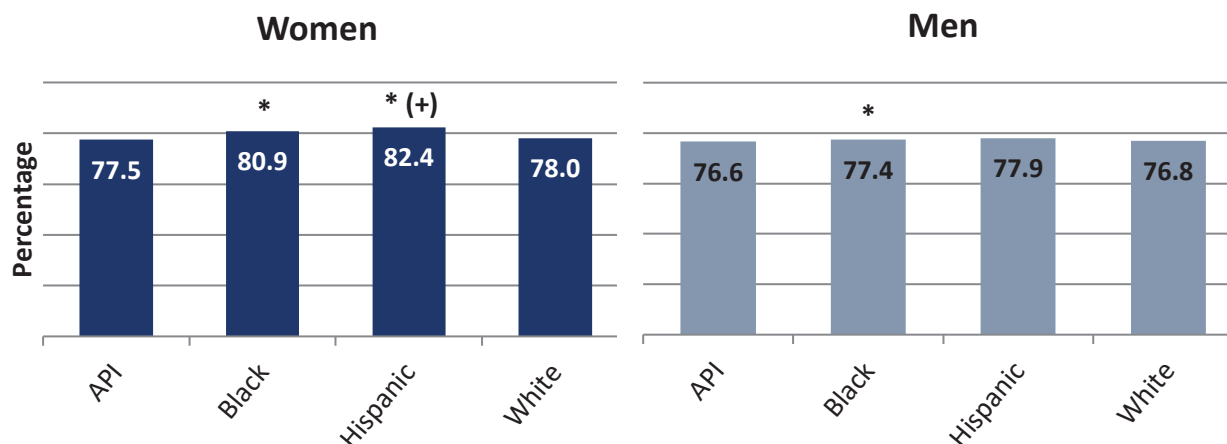
\* Significantly different from the score for White beneficiaries ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women were about as likely as White women to have been appropriately screened for colorectal cancer. Black and Hispanic women were more likely than White women to have been appropriately screened for colorectal cancer. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API and Hispanic men were about as likely as White men to have been appropriately screened for colorectal cancer. Black men were more likely than White men to have been appropriately screened for colorectal cancer. The difference between Black men and White men was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

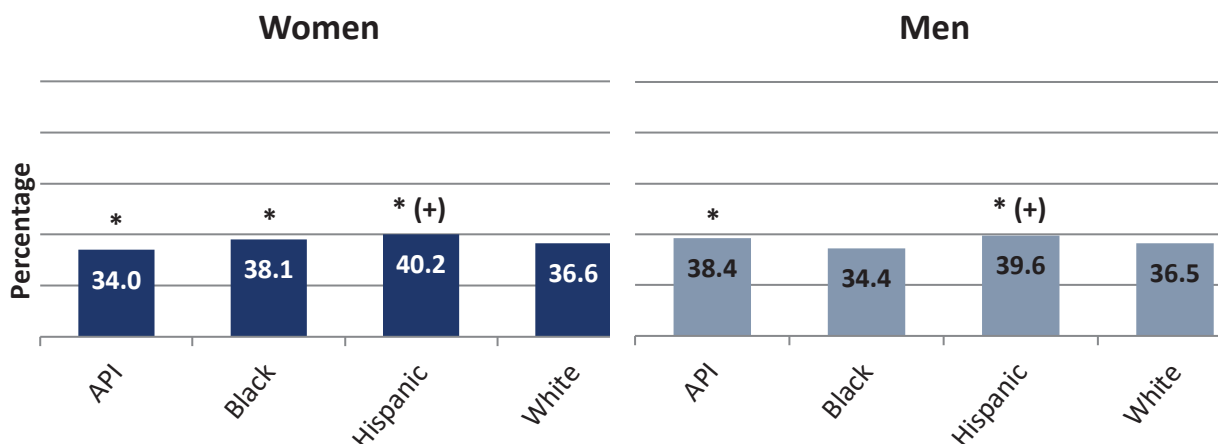
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API women with a new diagnosis of COPD or newly active COPD were less likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between API women and White women was less than 3 percentage points. Black and Hispanic women with a new diagnosis of COPD or newly active COPD were more likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API and Hispanic men with a new diagnosis of COPD or newly active COPD were more likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between API men and White men was less than 3 percentage points. The difference between Hispanic men and White men was greater than 3 percentage points. Black men with a new diagnosis of COPD or newly active COPD were about as likely as White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.

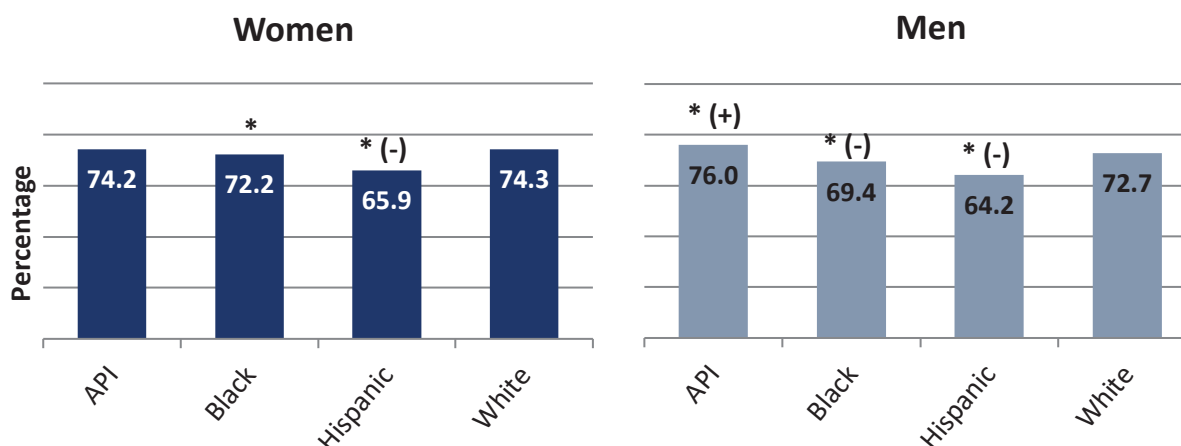
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid

**Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by race and ethnicity within gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women who experienced a COPD exacerbation were about as likely as White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. Black and Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

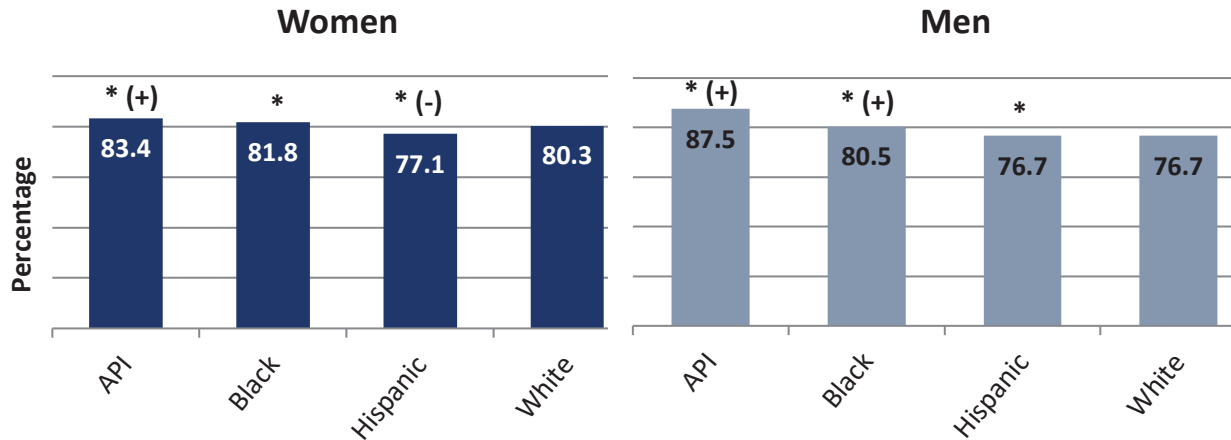
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

**Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity within gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Black women who experienced a COPD exacerbation were more likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points. Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanic women and White women was greater than 3 percentage points.
- API, Black, and Hispanic men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API men and White men was greater than 3 percentage points, as was the difference between Black men and White men. The difference between Hispanic men and White men was less than 3 percentage points.<sup>†</sup>

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

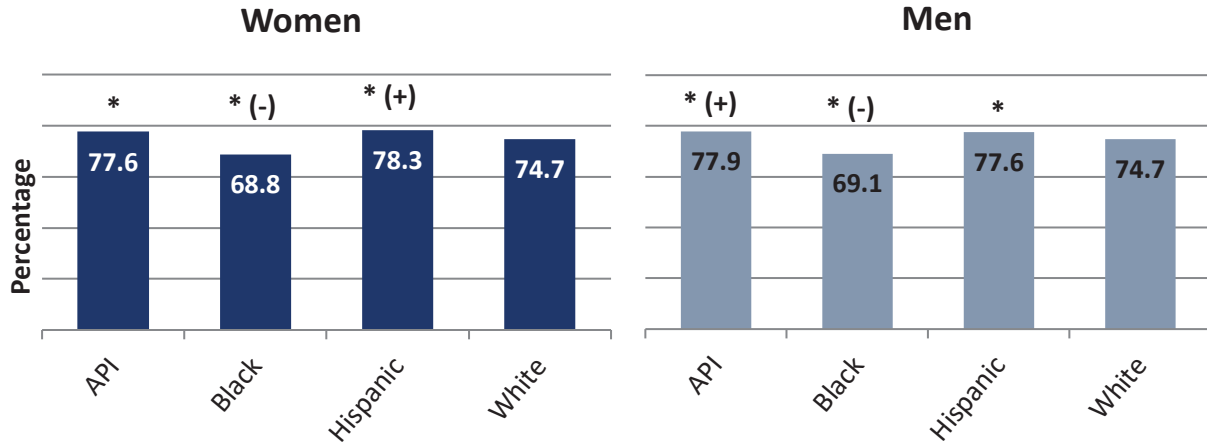
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Rounded to the hundredths place, scores for Hispanic men and White men are 76.72 and 76.66, respectively. Although it is small, this difference is statistically significant.

## Clinical Care: Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA enrollees aged 18 to 85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic women who had a diagnosis of hypertension were more likely than White women who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between API women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points. Black women who had a diagnosis of hypertension were less likely than White women who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black women and White women was greater than 3 percentage points.
- API and Hispanic men who had a diagnosis of hypertension were more likely than White men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between API men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points. Black men who had a diagnosis of hypertension were less likely than White men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

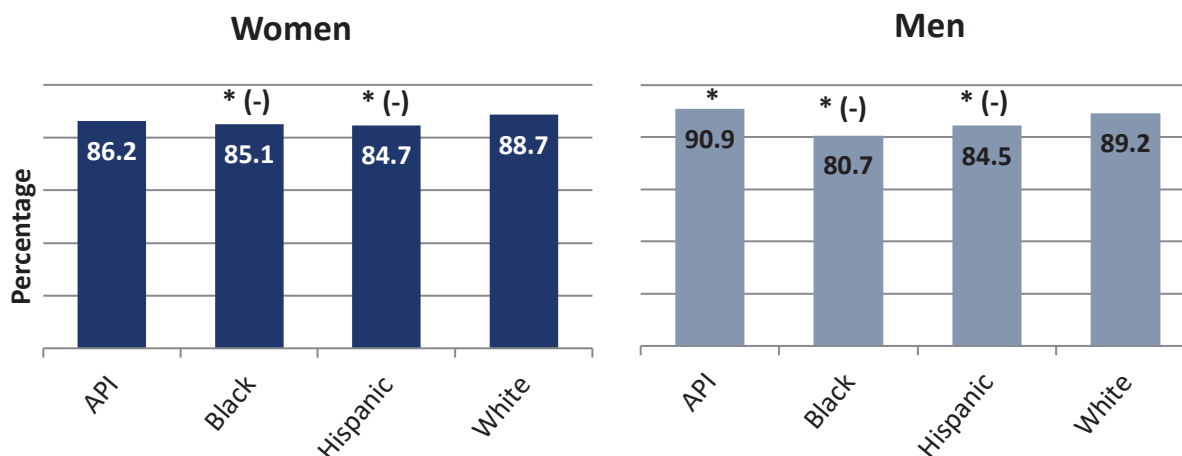
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged with a diagnosis of AMI who received continuous beta-blocker treatment for six months after discharge, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women who were hospitalized for a heart attack were about as likely as White women who were hospitalized for a heart attack to have received continuous beta-blocker treatment. Black and Hispanic women who were hospitalized for a heart attack were less likely than White women who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who were hospitalized for a heart attack were more likely than White men who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between API men and White men was less than 3 percentage points. Black and Hispanic men who were hospitalized for a heart attack were less likely than White men who were hospitalized for a heart attack to have received continuous beta-blocker treatment. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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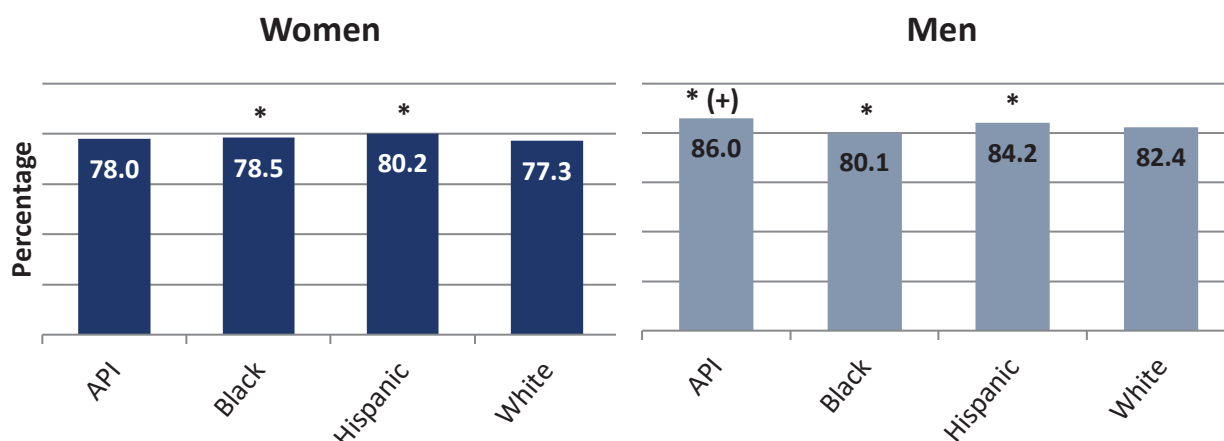
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Statin Use in Patients with Cardiovascular Disease

Percentage of men aged 21 to 75 years enrolled in MA and women aged 40 to 75 years enrolled in MA with clinical ASCVD who received statin therapy, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women with ASCVD were about as likely as White women with ASCVD to have received statin therapy. Black and Hispanic women with ASCVD were more likely than White women with ASCVD to have received statin therapy. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- API and Hispanic men with ASCVD were more likely than White men with ASCVD to have received statin therapy. The difference between API men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points. Black men with ASCVD were less likely than White men with ASCVD to have received statin therapy. The difference between Black men and White men was less than 3 percentage points.

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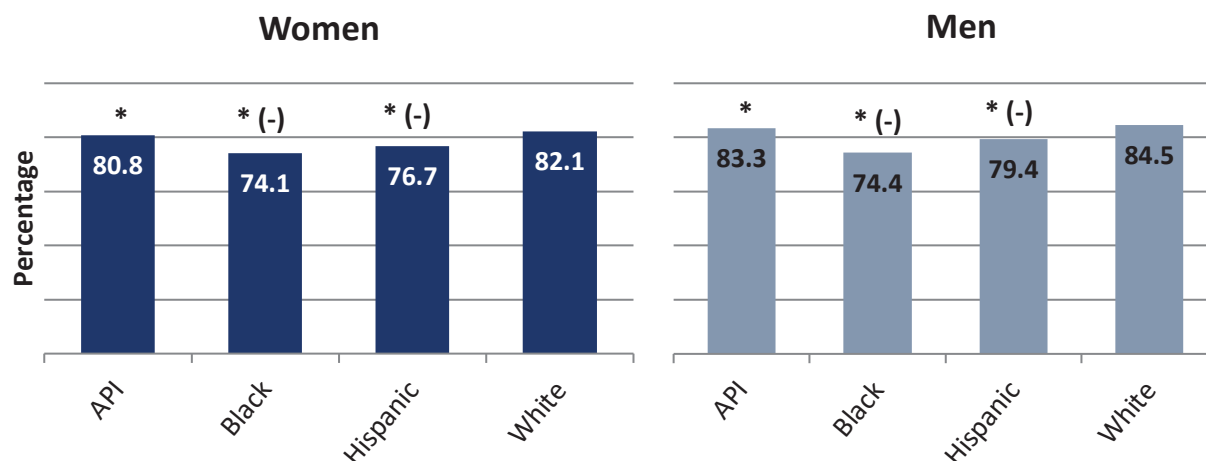
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical ASCVD who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic women with ASCVD were less likely than White women with ASCVD to have had proper statin medication adherence. The difference between API women and White women was less than 3 percentage points. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API, Black, and Hispanic men with ASCVD were less likely than White men with ASCVD to have had proper statin medication adherence. The difference between API men and White men was less than 3 percentage points. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

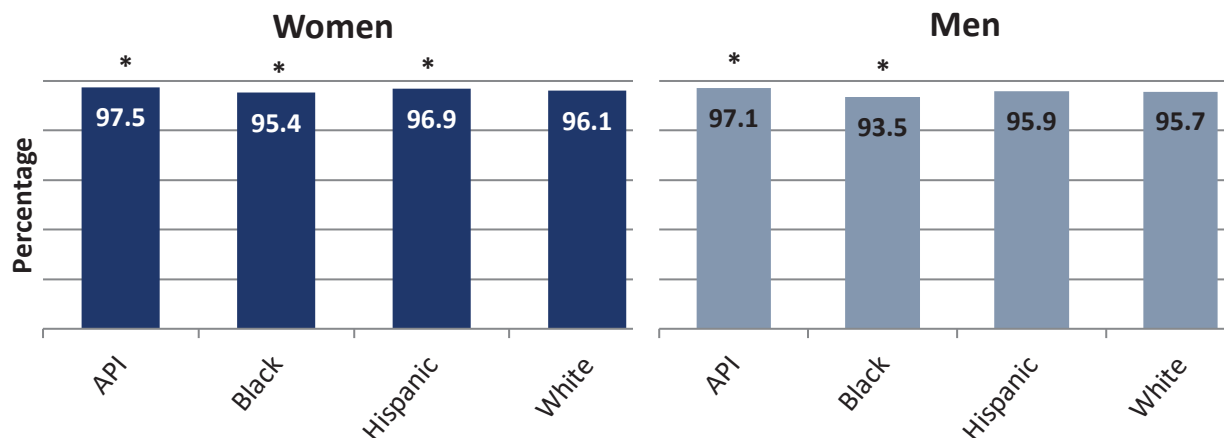
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women with diabetes were less likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between API men and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black men and White men was less than 3 percentage points. Hispanic men with diabetes were about as likely as White men with diabetes to have had their blood sugar tested at least once in the past year.

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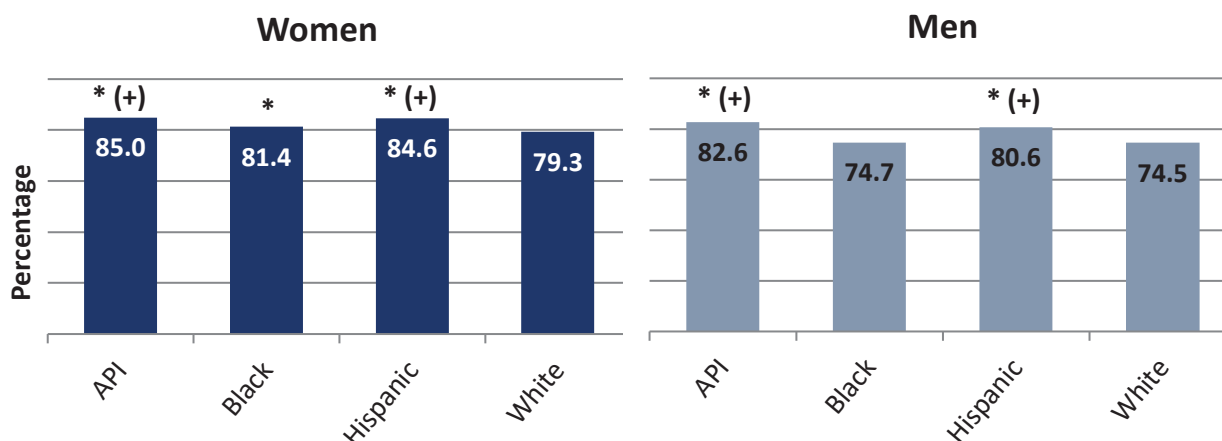
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Diabetes Care—Eye Exam

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had an eye exam in the past year. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had an eye exam in the past year. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with diabetes were about as likely as White men with diabetes to have had an eye exam in the past year.

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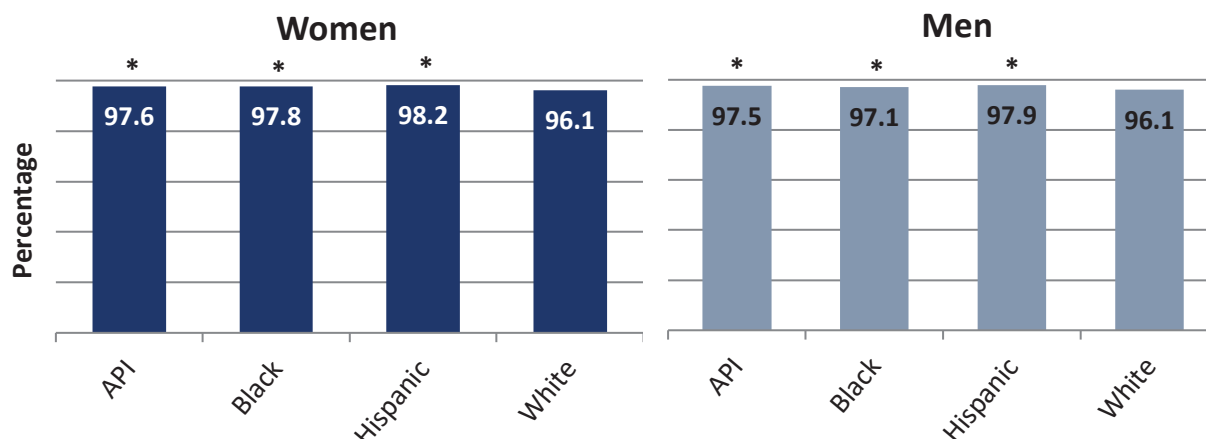
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Diabetes Care—Kidney Disease Monitoring

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men with diabetes were more likely than White men with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

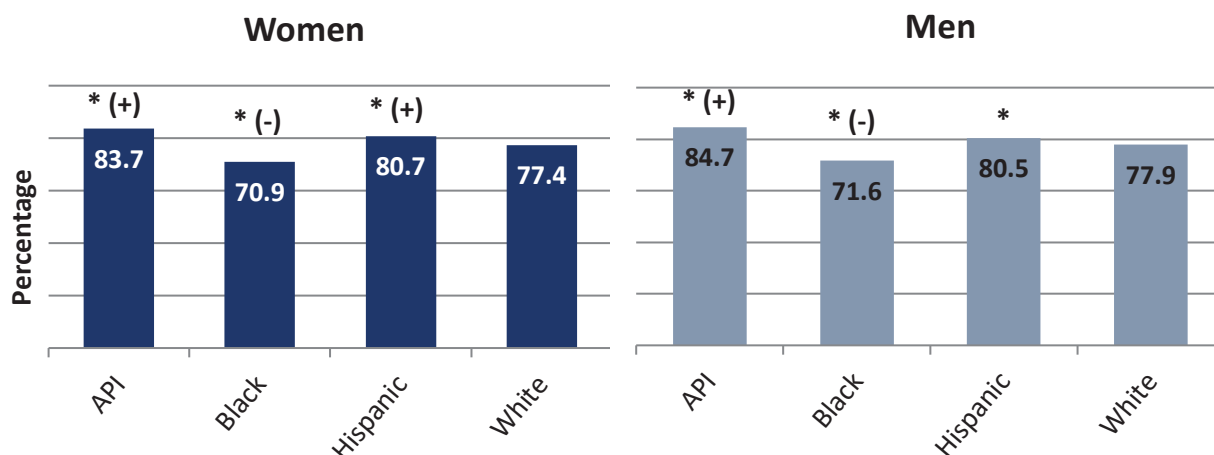
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



## Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood pressure under control. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. Black women with diabetes were less likely than White women with diabetes to have their blood pressure under control. The difference between Black women and White women was greater than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood pressure under control. The difference between API men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have their blood pressure under control. The difference between Black men and White men was greater than 3 percentage points.

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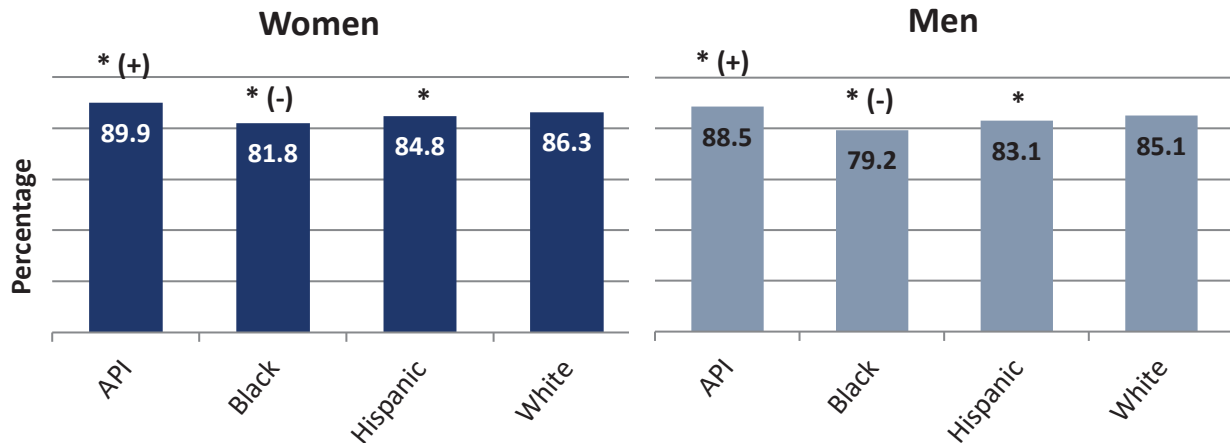
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women with diabetes were more likely than White women with diabetes to have their blood sugar levels under control. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women with diabetes were less likely than White women with diabetes to have their blood sugar levels under control. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have their blood sugar levels under control. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men with diabetes were less likely than White men with diabetes to have their blood sugar levels under control. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

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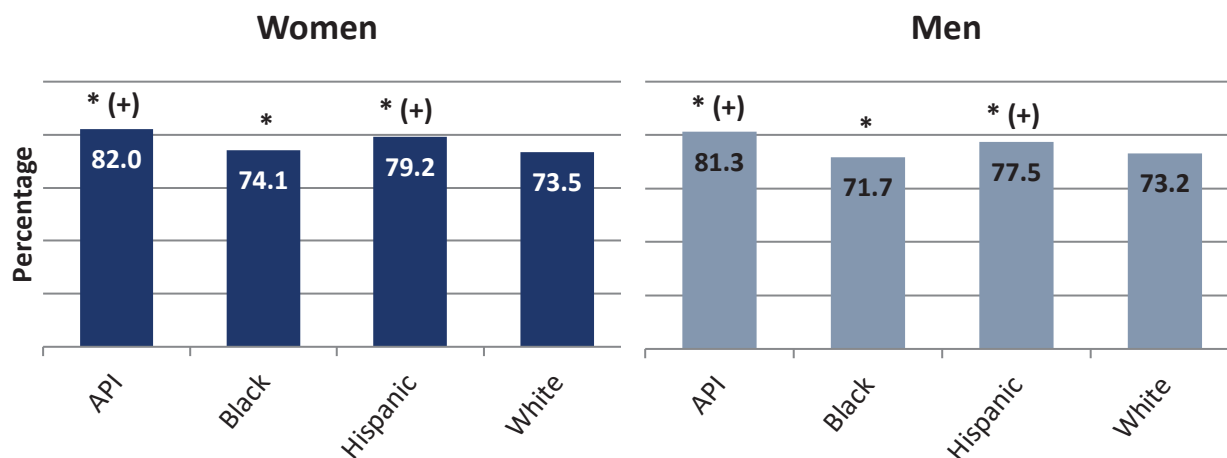
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have received statin therapy. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have received statin therapy. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with diabetes were less likely than White men with diabetes to have received statin therapy. The difference between Black men and White men was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

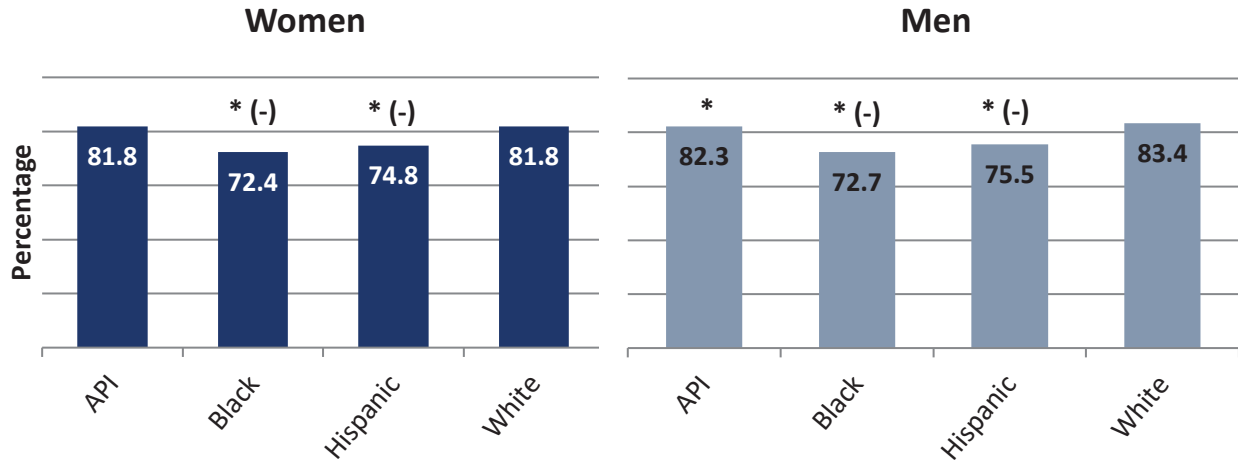
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women with diabetes were about as likely as White women with diabetes to have had proper statin medication adherence. Black and Hispanic women with diabetes were less likely than White women with diabetes to have had proper statin medication adherence. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API, Black, and Hispanic men with diabetes were less likely than White men with diabetes to have had proper statin medication adherence. The difference between API men and White men was less than 3 percentage points. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

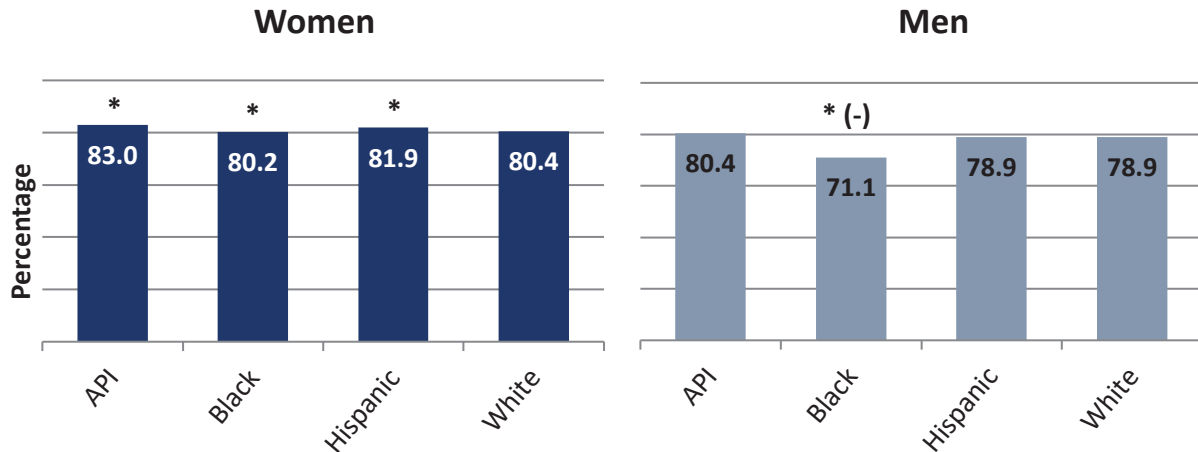
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Excludes those who also have clinical ASCVD.

## Clinical Care: Musculoskeletal Conditions

### **Rheumatoid Arthritis Management**

Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a DMARD, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic women who were diagnosed with rheumatoid arthritis were more likely than White women who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women who were diagnosed with rheumatoid arthritis were less likely than White women who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men who were diagnosed with rheumatoid arthritis were about as likely as White men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. Black men who were diagnosed with rheumatoid arthritis were less likely than White men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between Black men and White men was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

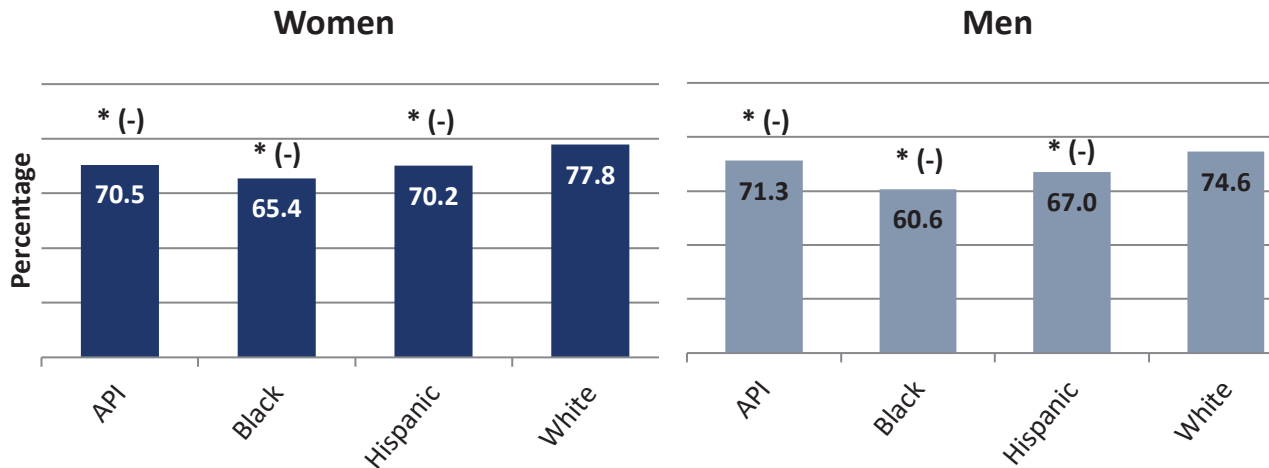
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and remained on the medication for at least 84 days, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 84 days. In each case, the difference was greater than 3 percentage points.

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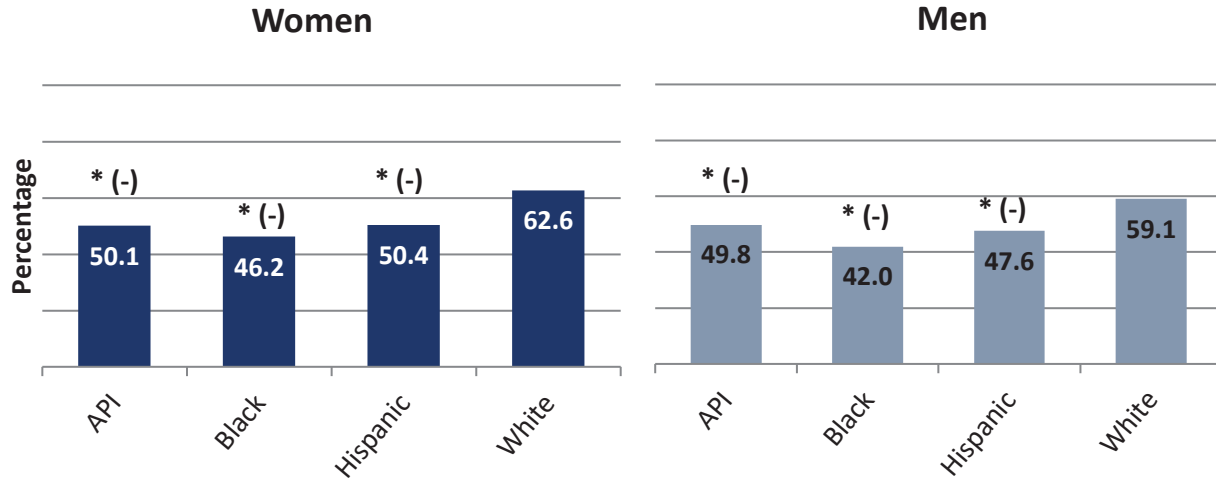
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on antidepressant medication for at least 180 days, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have been newly treated with antidepressant medication and to have remained on the medication for at least 180 days. In each case, the difference was greater than 3 percentage points.

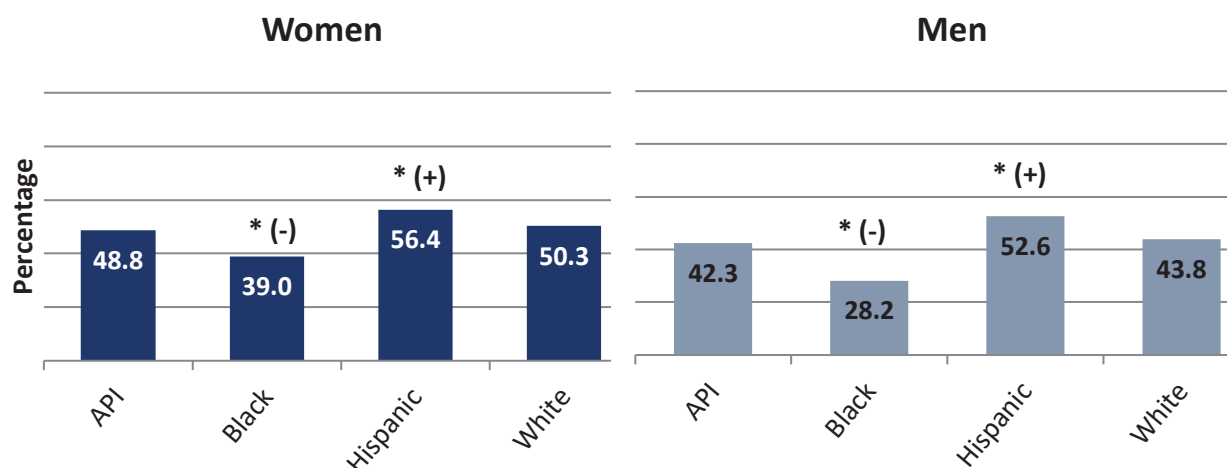
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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

**Follow-Up After Hospital Stay for Mental Illness (within 30 days of discharge)**  
**Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity within gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API women who were hospitalized for a mental health disorder were about as likely as White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. Black women who were hospitalized for a mental health disorder were less likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Black women and White women was greater than 3 percentage points. Hispanic women who were hospitalized for a mental health disorder were more likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Hispanic women and White women was greater than 3 percentage points.
- API men who were hospitalized for a mental health disorder were about as likely as White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. Black men who were hospitalized for a mental health disorder were less likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Black men and White men was greater than 3 percentage points. Hispanic men who were hospitalized for a mental health disorder were more likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Hispanic men and White men was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).



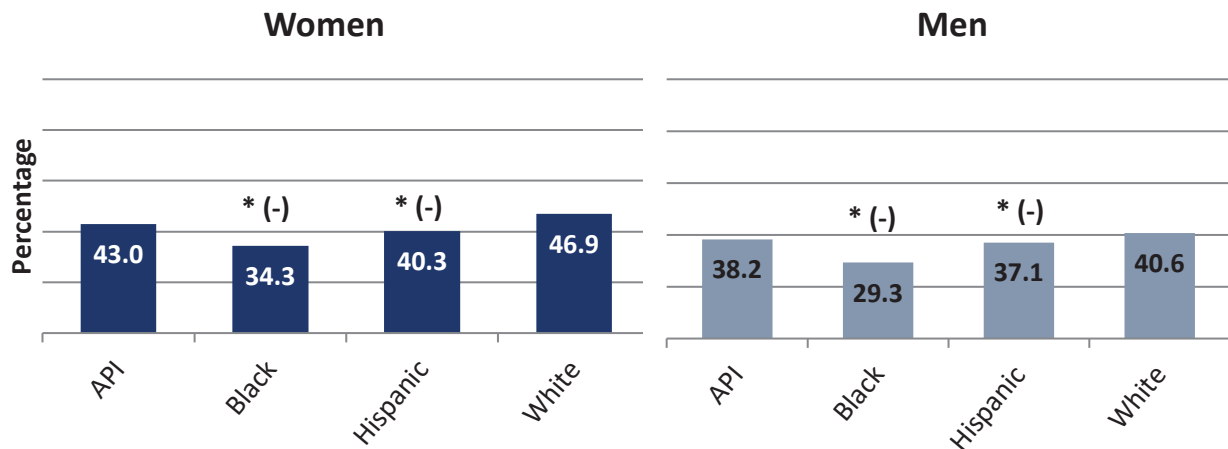
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women who had an ED visit for a mental health disorder were about as likely as White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. Black and Hispanic women who had an ED visit for a mental health disorder were less likely than White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who had an ED visit for a mental health disorder were about as likely as White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. Black and Hispanic men who had an ED visit for a mental health disorder were less likely than White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

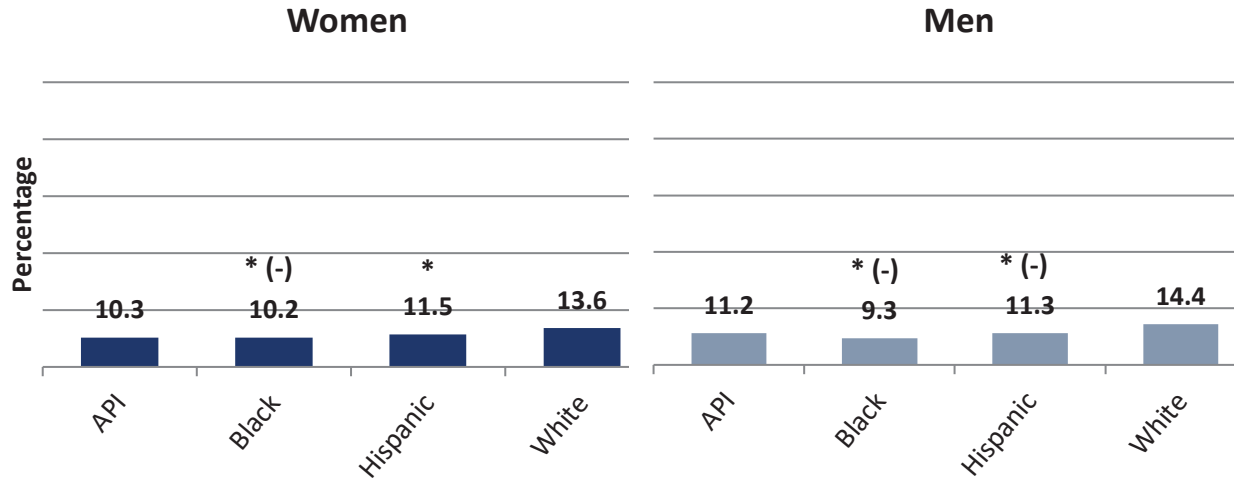
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-Up After Emergency Department Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women who had an ED visit for AOD abuse or dependence were about as likely as White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. Black and Hispanic women who had an ED visit for AOD abuse or dependence were less likely than White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men who had an ED visit for AOD abuse or dependence were about as likely as White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. Black and Hispanic men who had an ED visit for AOD abuse or dependence were less likely than White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

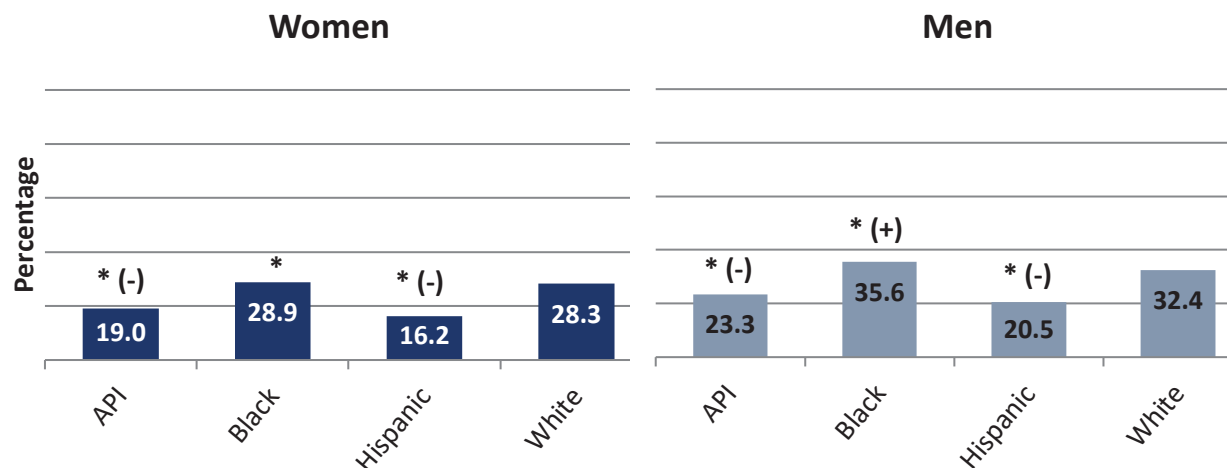
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiate<sup>‡</sup> treatment within 14 days of the diagnosis, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic women with a new episode of AOD dependence were less likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. Black women with a new episode of AOD dependence were more likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with a new episode of AOD dependence were less likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with a new episode of AOD dependence were more likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

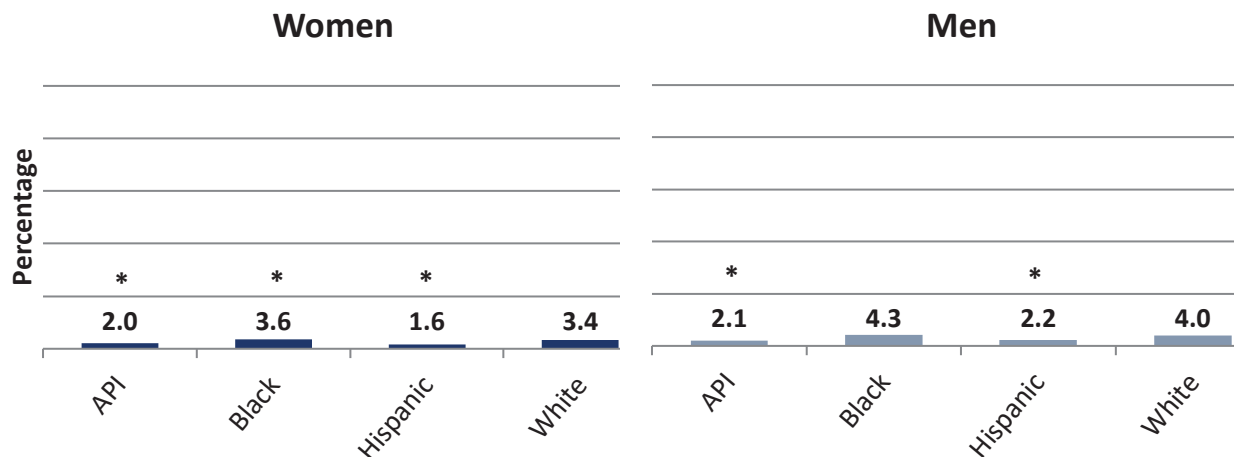
(-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API and Hispanic women with a new episode of AOD dependence who initiated treatment were less likely than White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women with a new episode of AOD dependence who initiated treatment were more likely than White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between Black women and White women was less than 3 percentage points
- API and Hispanic men with a new episode of AOD dependence who initiated treatment were less likely than White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between API men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men. Black men with a new episode of AOD dependence who initiated treatment were about as likely as White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

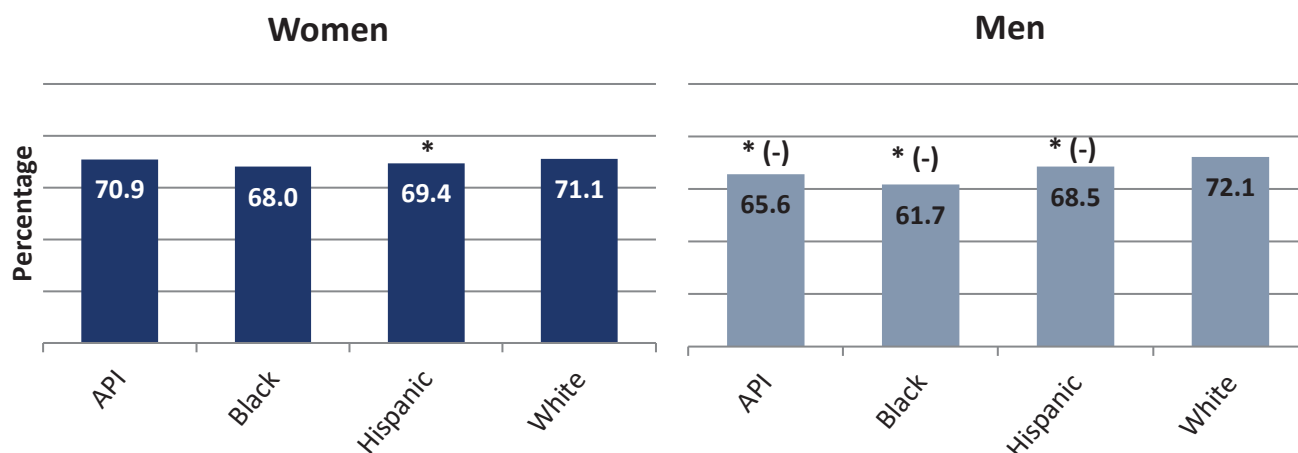
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Clinical Care: Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API and Black women who were discharged from an inpatient facility were about as likely as White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. Hispanic women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Hispanic women and White women was less than 3 percentage points.
- API, Black, and Hispanic men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. In each case, the difference was greater than 3 percentage points.

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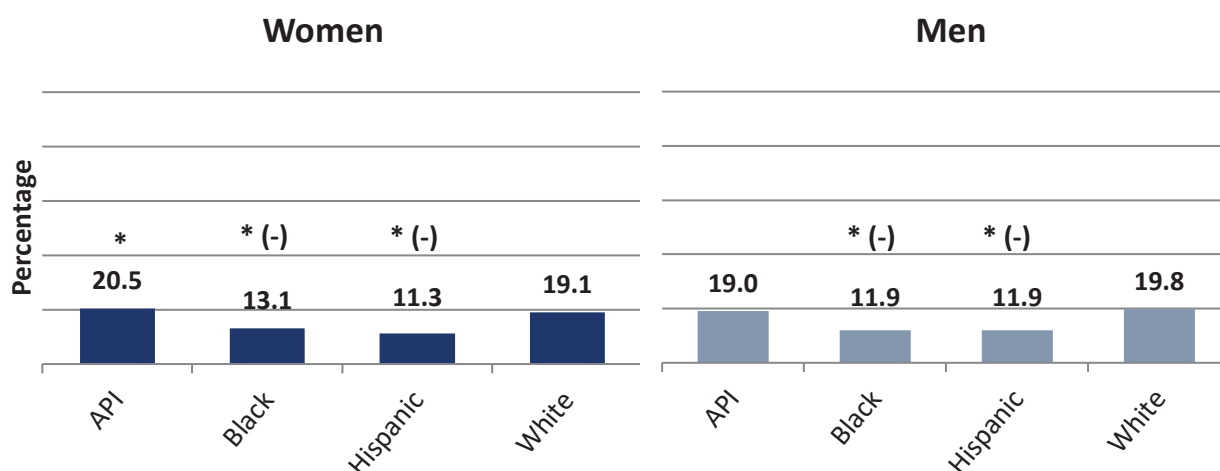
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

### Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- The primary or ongoing care providers of API women who were discharged from an inpatient facility were more likely than the primary or ongoing care providers of White women who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. The difference was less than 3 percentage points. The primary or ongoing care providers of Black and Hispanic women who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of White women who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In each case, the difference was greater than 3 percentage points.
- The primary or ongoing care providers of API men who were discharged from an inpatient facility were about as likely as the primary or ongoing care providers of White men who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. The primary or ongoing care providers of Black and Hispanic men who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of White men who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In each case, the difference was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

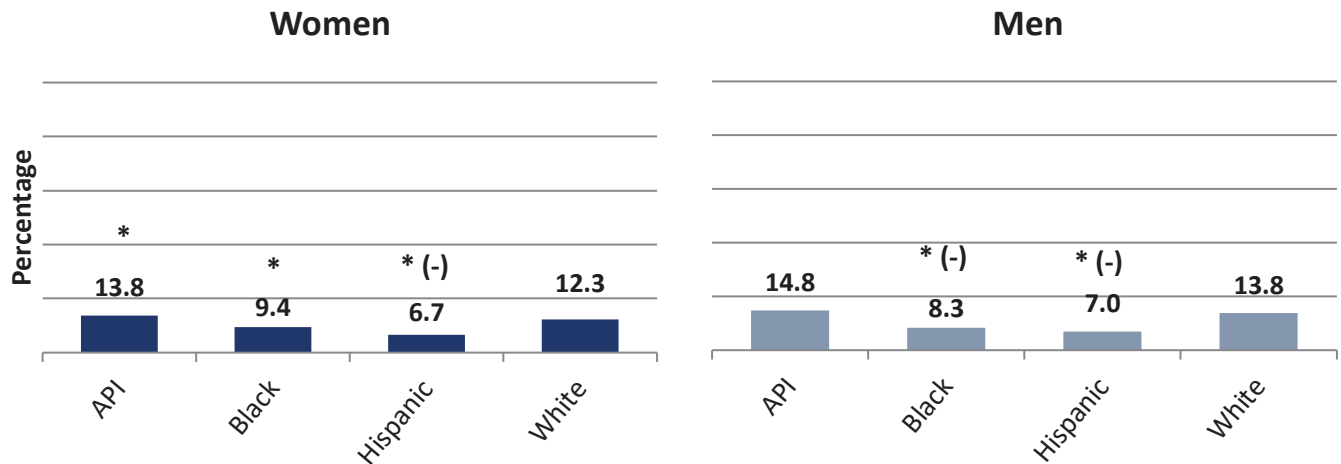
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.



### Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

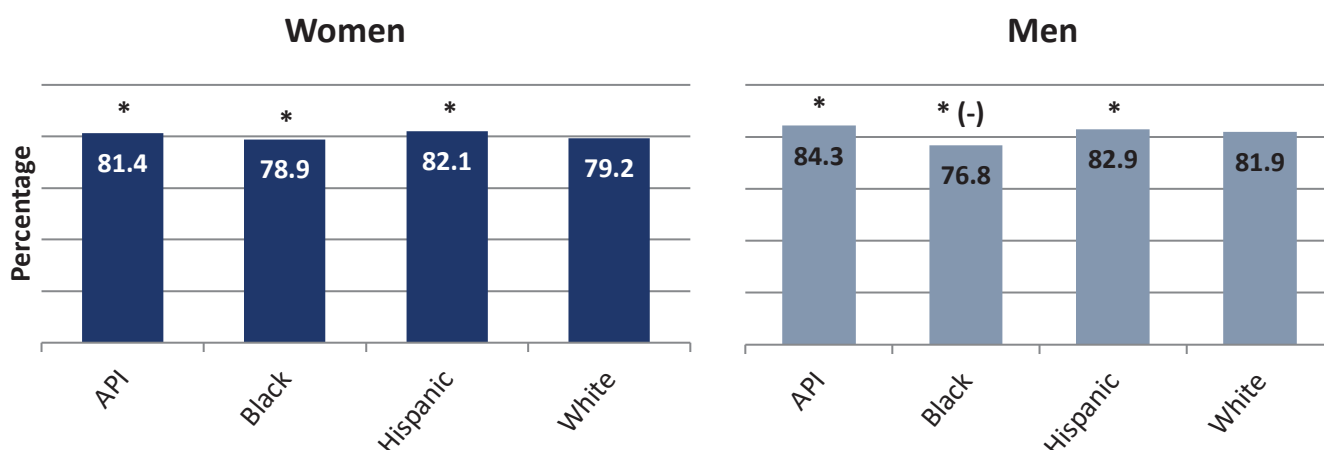
- API women who were discharged from an inpatient facility were more likely than White women who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between API women and White women was less than 3 percentage points. Black and Hispanic women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API men who were discharged from an inpatient facility were about as likely as White men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. Black and Hispanic men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

**Transitions of Care—Patient Engagement After Inpatient Discharge**  
**Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by race and ethnicity within gender, 2019**



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API and Hispanic women who were discharged from an inpatient facility were more likely than White women who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men who were discharged from an inpatient facility were more likely than White men who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between API men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men. Black men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had an office visit, home visit, or to have received telehealth services within 30 days of discharge. The difference between Black men and White men was greater than 3 percentage points.

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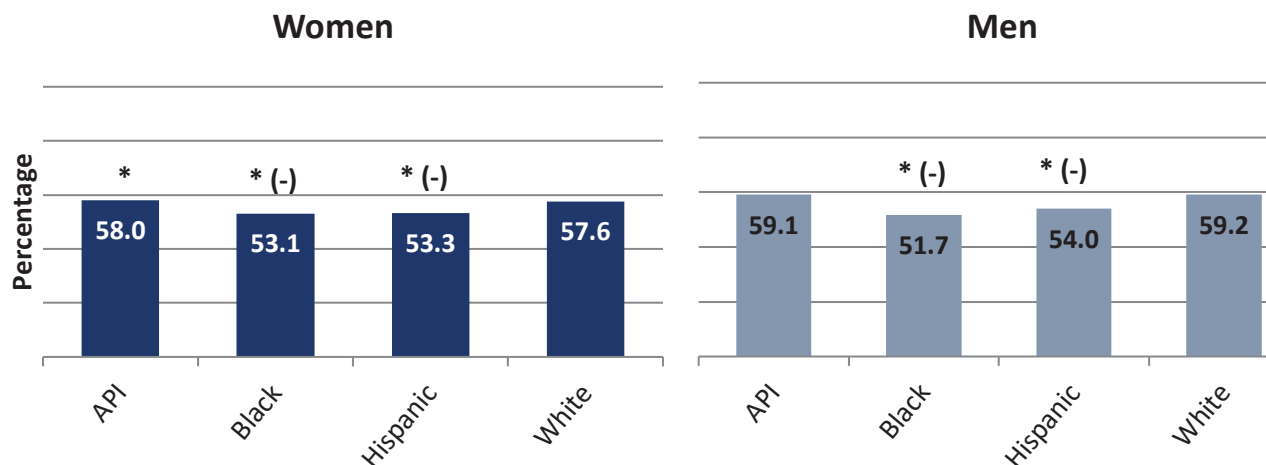
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Follow-Up After Emergency Department Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- API women with multiple high-risk chronic conditions were more likely than White women with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between API women and White women was less than 3 percentage points. Black and Hispanic women with multiple high-risk chronic conditions were less likely than White women with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men with multiple high-risk chronic conditions were about as likely as White men with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. Black and Hispanic men with multiple high-risk chronic conditions were less likely than White men with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

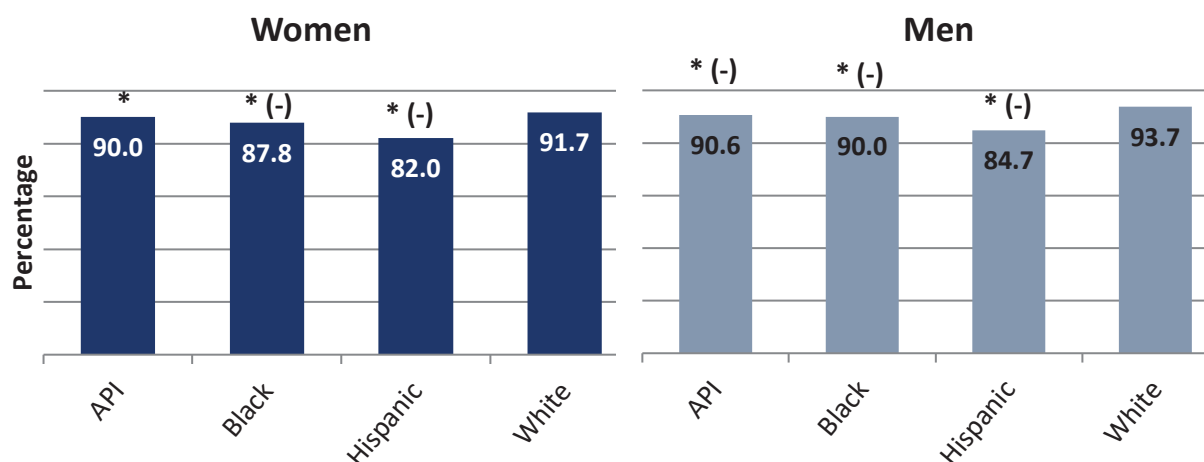
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.

## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly API, Black, and Hispanic women with chronic renal failure than for elderly White women with chronic renal failure. The difference between elderly API women and elderly White women was less than 3 percentage points. The difference between elderly Black women and elderly White women was greater than 3 percentage points, as was the difference between elderly Hispanic women and elderly White women.
- Use of potentially harmful medication was avoided less often for elderly API, Black, and Hispanic men with chronic renal failure than for elderly White men with chronic renal failure. In each case, the difference was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

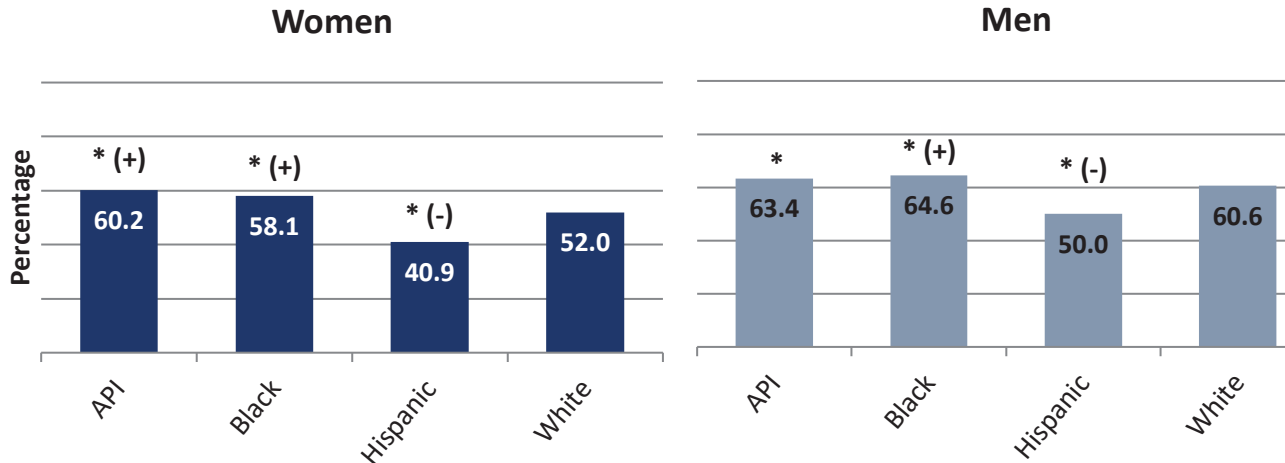
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes cyclooxygenase-2 selective NSAIDs or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API and elderly Black women with dementia than for elderly White women with dementia. The difference between elderly API women and elderly White women was greater than 3 percentage points, as was the difference between elderly Black women and elderly White women. Use of potentially harmful medication was avoided less often for elderly Hispanic women with dementia than for elderly White women with dementia. The difference between elderly Hispanic women and elderly White women was greater than 3 percentage points.
- Use of potentially harmful medication was avoided more often for elderly API and elderly Black men with dementia than for elderly White men with dementia. The difference between elderly API men and elderly White men was less than 3 percentage points. The difference between elderly Black men and elderly White men was greater than 3 percentage points. Use of potentially harmful medication was avoided less often for elderly Hispanic men with dementia than for elderly White men with dementia. The difference between elderly Hispanic men and elderly White men was greater than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

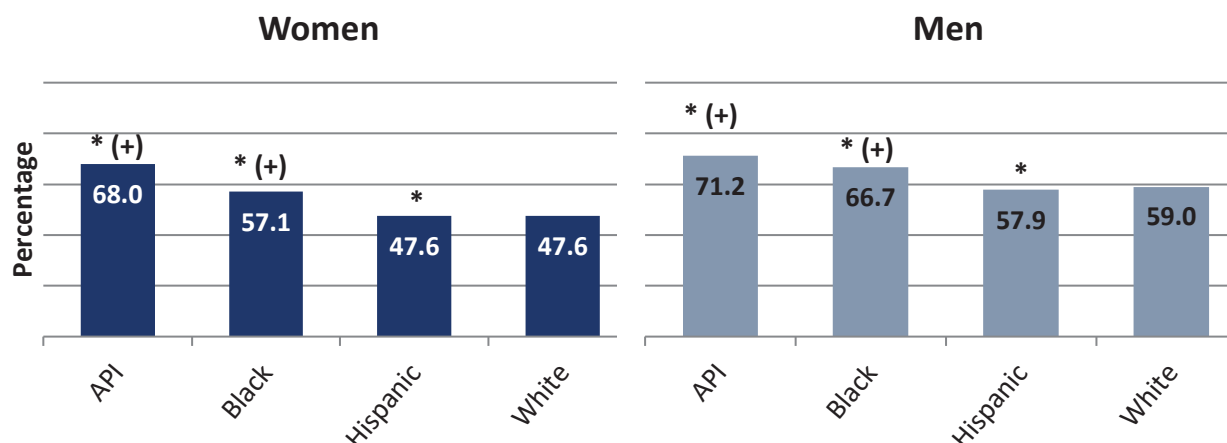
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API, Black, and Hispanic women with a history of falls than for elderly White women with a history of falls. The difference between elderly API women and elderly White women was greater than 3 percentage points, as was the difference between elderly Black women and elderly White women. The difference between elderly Hispanic women and elderly White women was less than 3 percentage points.<sup>‡</sup>
- Use of potentially harmful medication was avoided more often for elderly API and elderly Black men with a history of falls than for elderly White men with a history of falls. The difference between elderly API men and elderly White men was greater than 3 percentage points, as was the difference between elderly Black men and elderly White men. Use of potentially harmful medication was avoided less often for elderly Hispanic men with a history of falls than for elderly White men with a history of falls. The difference between elderly Hispanic men and elderly White men was less than 3 percentage points.

\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

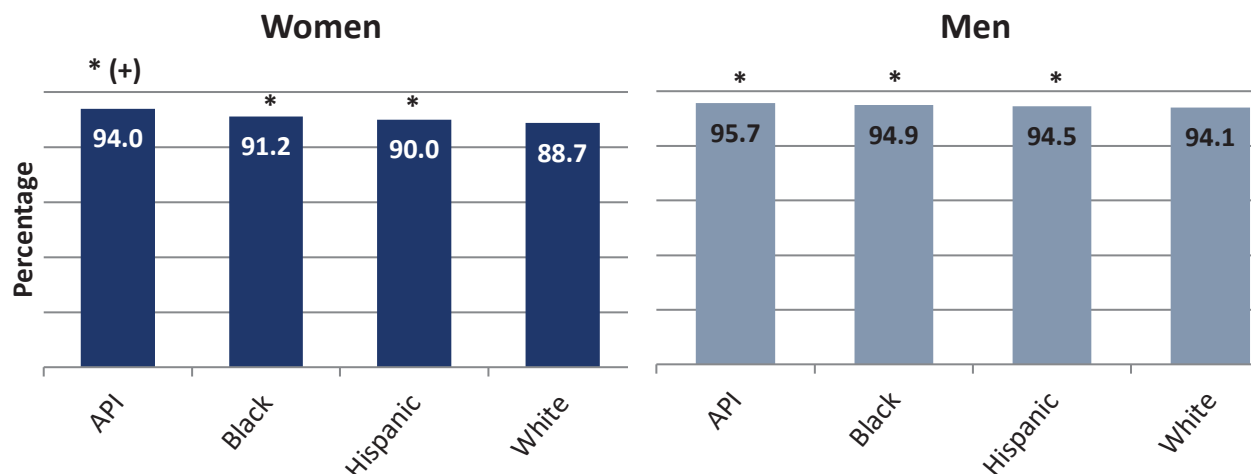
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

<sup>‡</sup> Rounded to the hundredths place, scores for Hispanic women and White women are 47.63 and 47.59, respectively. Although it is small, this difference is statistically significant.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of high-risk medication was avoided more often for API, Black, and Hispanic women than for White women. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- Use of high-risk medication was avoided more often for API, Black, and Hispanic men than for White men. In each case, the difference was less than 3 percentage points.

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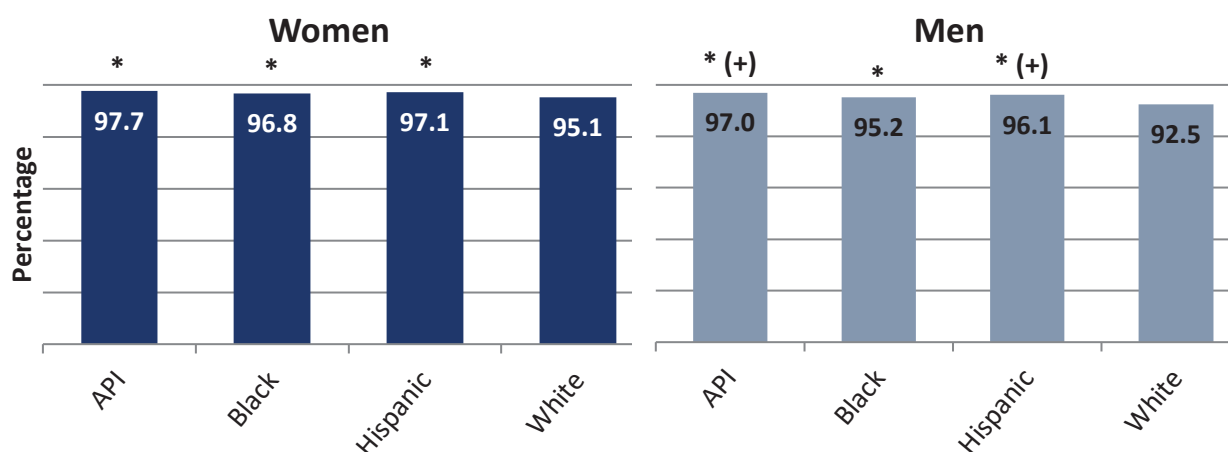
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of opioids at a high dosage for more than 14 days was avoided more often for API, Black, and Hispanic women than for White women. In each case, the difference was less than 3 percentage points.
- Use of opioids at a high dosage for more than 14 days was avoided more often for API, Black, and Hispanic men than for White men. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. The difference between Black men and White men was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

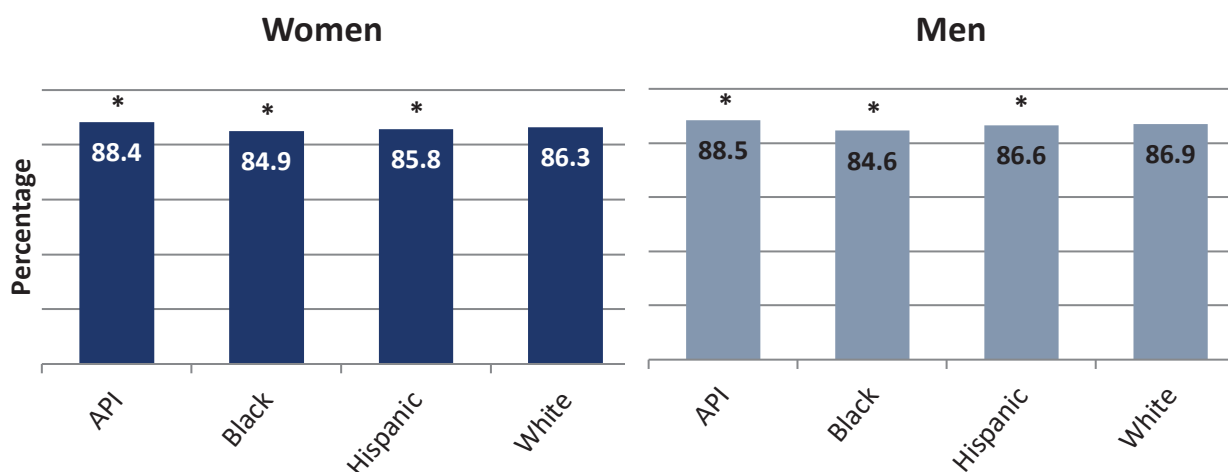
(-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

<sup>†</sup> Average morphine equivalent dose > 120 mg.



## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of opioids from multiple prescribers was avoided more often for API women than for White women. The difference between API women and White women was less than 3 percentage points. Use of opioids from multiple prescribers was avoided less often for Black and Hispanic women than for White women. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- Use of opioids from multiple prescribers was avoided more often for API men than for White men. The difference between API men and White men was less than 3 percentage points. Use of opioids from multiple prescribers was avoided less often for Black and Hispanic men than for White men. The difference between Black men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men.

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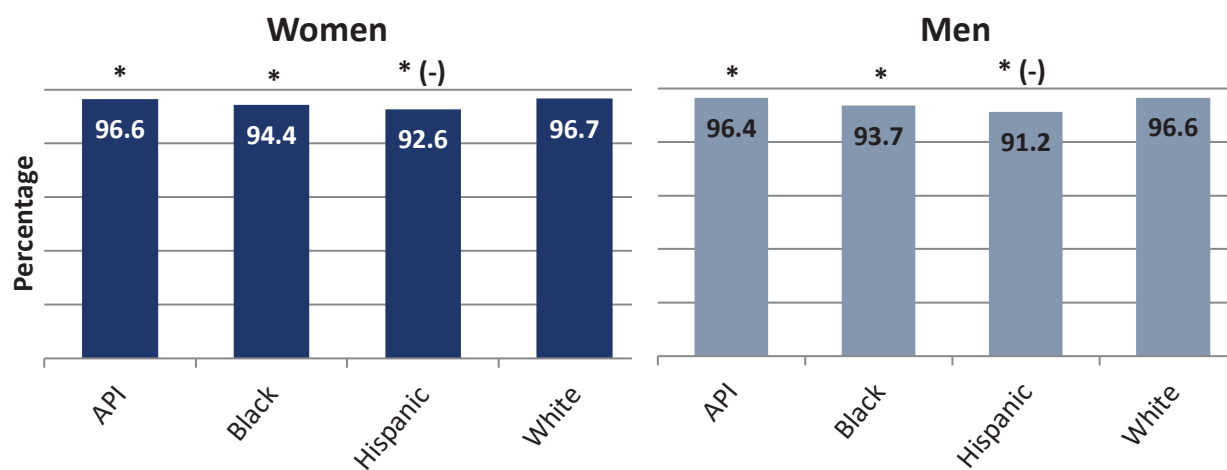
\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

### Disparities

- Use of opioids from multiple pharmacies was avoided less often for API, Black, and Hispanic women than for White women. The difference between API women and White women was less than 3 percentage points, as was the difference between Black women and White women. The difference between Hispanic women and White women was greater than 3 percentage points.
- Use of opioids from multiple pharmacies was avoided less often for API, Black, and Hispanic men than for White men. The difference between API men and White men was less than 3 percentage points, as was the difference between Black men and White men. The difference between Hispanic men and White men was greater than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

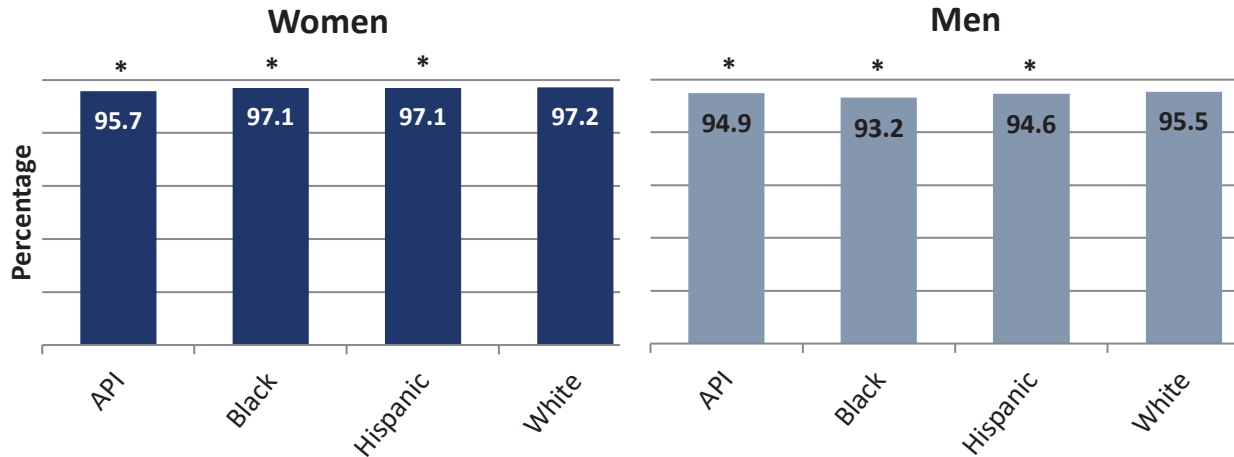
For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by race and ethnicity within gender, 2019



**SOURCE:** Clinical quality data were collected in 2019 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Black and White are non-Hispanic. Hispanic ethnicity includes all races.

#### Disparities

- API, Black, and Hispanic women were less likely than White women to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men were less likely than White men to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for White beneficiaries of the same gender ( $p < 0.05$ ).

For statistically significant differences between White beneficiaries and racial or ethnic minority beneficiaries of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors White beneficiaries.

## Appendix: Data Sources and Methods

### *The Medicare Consumer Assessment of Healthcare Providers and Systems Survey*

The Medicare CAHPS survey consists of a set of mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with contracts serving as strata for MA beneficiaries and for FFS beneficiaries enrolled in prescription drug plans (PDPs) and states serving as strata for FFS beneficiaries not enrolled in a PDP. The 2019 Medicare CAHPS survey attempted to contact 884,300 Medicare beneficiaries and received responses from 318,116, a 36.4-percent response rate. The 2019 surveys represent all FFS beneficiaries, MA beneficiaries from 448 MA contracts that either were required to report (minimum of 600 eligible enrollees) or reported voluntarily (450–599 enrollees), and PDP beneficiaries from 53 PDP contracts with at least 1,500 eligible enrollees. The data presented in this report pertain only to MA beneficiaries.

### *The Healthcare Effectiveness Data and Information Set*

The HEDIS consists of more than 90 measures across six domains of care (National Committee for Quality Assurance, undated b). These domains are effectiveness of care, access/availability of care, experience of care, utilization and risk-adjusted utilization, relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of the National Committee for Quality Assurance. Although CAHPS data are collected only via surveys, HEDIS data are gathered both via surveys and via medical charts and insurance claims or encounter data for hospitalizations, medical office visits, and procedures. In selecting HEDIS measures to include in this report, we excluded measures that underwent a recent change in specification, were similar to reported measures preferred by the Centers for Medicare & Medicaid Services (CMS), or were deemed unsuitable for this application by CMS experts. In 2019, there were 529 MA contracts that supplied the 18,870,135 HEDIS measure records used for this report.

### *Information on Race and Ethnicity*

The 2019 CAHPS survey asked beneficiaries, “Are you of Hispanic or Latino origin or descent?” The response options were: “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asked, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into 1 of 7 mutually exclusive categories: Hispanic, multiracial, AI/AN, API, Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: Those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their responses.
- Respondents without data regarding race and ethnicity were classified as unknown.
- Unknown cases were dropped from the analysis. The multiracial group was included in the analysis, but estimates for this group are not presented in this report.
- In some prior versions of this report, we did not include estimates for AI/AN beneficiaries because there were too few AI/AN respondents to make accurate comparisons between this

group and White beneficiaries when looking at women and men separately. For this year's report, there were sufficient data to report scores on all patient experience measures for both AI/AN women and AI/AN men.

HEDIS data, unlike CAHPS data, do not contain the patient's self-reported race and ethnicity. Therefore, we imputed race and ethnicity for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Haas et al., 2019). This methodology—which is called Medicare Bayesian Improved Surname Geocoding (MBISG)—is recommended for estimating racial and ethnic disparities for Black, Hispanic, API, and White beneficiaries (Haas et al., 2019). MBISG 2.1 imputations, which are used for this report, are strongly predictive of self-reported race and ethnicity for these four racial and ethnic groups. Predictive accuracy is measured using the C-statistic, also called to Concordance Statistic or Area Under the Curve, a common metric for the performance of classification models. The C-statistic ranges from 0.5 (no predictiveness) to 1.0 (perfect predictiveness). C-statistics for MBISG 2.1 imputations of API, Black, Hispanic, and White race or ethnicity are 0.99, 0.99, 0.96, and 0.96, respectively.

### *Information on Gender*

Information on the gender of MA beneficiaries is gathered from administrative records.

### *Analytic Approach*

The CAHPS measures presented in this report are composite measures that summarize, through averaging, the answers to two or more related CAHPS survey questions, or items. The annual flu vaccine measure is included in the CAHPS survey and is thus grouped with other CAHPS measures in this report. It is, however, considered to be a HEDIS measure. This is a single-item measure rather than a composite.

CAHPS estimates for different racial and ethnic groups are from case-mix-adjusted linear regression models that contained health contract intercepts, racial and ethnic indicators, and the following case-mix adjusters: age, education, self-rated health and mental health, dual eligibility/low-income subsidy, and proxy status. No adjustment was made for survey language. Race and ethnicity were coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White as the (omitted) reference group. CAHPS estimates for men and women are from case-mix-adjusted linear regression models that contained health contract intercepts, an indicator for female gender (with male as the reference group), and the same set of case-mix adjusters used in the racial and ethnic group models. CAHPS estimates for men and women of different racial and ethnic backgrounds are from case-mix-adjusted linear regression models, stratified by gender. These models contained health contract intercepts, racial and ethnic indicators, and the case-mix adjusters.

Predicted probabilities of race and ethnicity were used as weights to develop HEDIS measure estimates for each racial and ethnic group (Elliott et al., 2009). None of the HEDIS measures reported (including the annual flu vaccine measure) is case-mix adjusted.

Statistical significance tests were used to compare the model-estimated scores for each racial and ethnic minority group with the score for White beneficiaries and to compare the model-estimated scores for women and men. A difference in scores is denoted as statistically significant if there is less than a 5-percent chance that the difference could have resulted due to sampling error alone. Differences that are statistically significant and larger than 3 points on a 0–100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant. That is, in the charts that present national data on racial and ethnic and gender differences in patient experience (CAHPS) and clinical care (HEDIS), differences that

are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013).

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**April 2020**



# **Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage**



**Office of Minority Health  
in collaboration with the RAND Corporation**



# Contents

Executive Summary .....	v
Overview and Methods .....	1
Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage .....	5
Disparities in Care: All Patient Experience Measures .....	6
Patient Experience .....	8
Disparities in Care: All Clinical Care Measures .....	15
Clinical Care: Prevention and Screening .....	18
Clinical Care: Respiratory Conditions .....	21
Clinical Care: Cardiovascular Conditions .....	24
Clinical Care: Diabetes .....	28
Clinical Care: Musculoskeletal Conditions .....	35
Clinical Care: Behavioral Health .....	37
Clinical Care: Medication Management and Care Coordination .....	47
Clinical Care: Overuse/Appropriateness .....	53
Clinical Care: Access/Availability of Care .....	61
Section II: Gender Disparities in Health Care in Medicare Advantage .....	62
Disparities in Care: .....	63
All Patient Experience and Clinical Care Measures .....	63
Patient Experience .....	65
Clinical Care: Prevention and Screening .....	72
Clinical Care: Respiratory Conditions .....	74
Clinical Care: Cardiovascular Conditions .....	77
Clinical Care: Diabetes .....	79
Clinical Care: Musculoskeletal Conditions .....	86
Clinical Care: Behavioral Health .....	87
Clinical Care: Medication Management and Care Coordination .....	97
Clinical Care: Overuse/Appropriateness .....	103
Clinical Care: Access/Availability of Care .....	111
Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage .....	112
Disparities in Care: All Patient Experience Measures .....	113
Patient Experience .....	115
Disparities in Care: All Clinical Care Measures .....	122
Clinical Care: Prevention and Screening .....	127
Clinical Care: Respiratory Conditions .....	129

Clinical Care: Cardiovascular Conditions .....	135
Clinical Care: Diabetes.....	139
Clinical Care: Musculoskeletal Conditions.....	147
Clinical Care: Behavioral Health .....	148
Clinical Care: Medication Management and Care Coordination .....	166
Clinical Care: Overuse/Appropriateness .....	176
Clinical Care: Access/Availability of Care.....	187
Appendix: Data Sources and Methods .....	188
References .....	190



# **Executive Summary**

## **Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage**



## ***Introduction***

This report describes the quality of health care received in 2018 by Medicare beneficiaries enrolled in Medicare Advantage (MA) plans nationwide (31.6 percent of all Medicare beneficiaries). The report highlights racial and ethnic differences in health care experiences and clinical care, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately. This 2020 report is the fifth in a series of reports that are updated annually.

The report is based on an analysis of two sources of information. The first source is the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey, which is conducted annually by the Centers for Medicare & Medicaid Services (CMS) and focuses on the health care experiences (e.g., ease of getting needed care, how well providers communicate, and getting needed prescription drugs) of Medicare beneficiaries across the nation. The second source of information is the Healthcare Effectiveness Data and Information Set (HEDIS®). HEDIS is composed of information collected from medical records and administrative data on the clinical quality of care that Medicare beneficiaries receive for a variety of medical issues, including diabetes, cardiovascular disease, and chronic lung disease. A comprehensive list of the seven patient experience and 44 clinical care measures included in this report appears on pp. xiv–xv. Scores on CAHPS measures are case-mix adjusted, as described in the appendix. HEDIS measures are not case-mix adjusted.

## ***Distribution of Race, Ethnicity, and Gender Among Medicare Advantage Beneficiaries***

In 2018, an estimated 69.3 percent of all MA beneficiaries were White (versus 75.5 percent of the general Medicare population<sup>1</sup>), 13.4 percent were Hispanic (versus 9.2 percent), 10.7 percent were Black (versus 10.6 percent), 4.0 percent were Asians or Pacific Islanders (API; versus 3.3 percent), 2.4 percent were multiracial (not included in this report;<sup>2</sup> versus 0.9 percent), and 0.4 percent were American Indians or Alaska Natives (AI/AN; versus 0.5 percent). An estimated 56.5 percent of all MA beneficiaries were female (versus 54.4 percent of the general Medicare population), and 43.5 percent were male (versus 45.6 percent).

## ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

With just one exception, MA beneficiaries in racial and ethnic minority groups reported experiences with care that were either worse than or similar to the experiences reported by White beneficiaries (see Figure 1). Compared with White beneficiaries, AI/AN beneficiaries reported worse<sup>3</sup> experiences on four measures and similar experiences on the other three measures. API beneficiaries reported worse experiences than Whites on six measures and better experiences on one measure (annual flu vaccination). Black beneficiaries reported worse experiences than Whites on two measures and similar experiences on the other five measures. Likewise, Hispanic beneficiaries reported worse experiences than Whites on two measures and similar experiences on the other five measures.

Racial and ethnic disparities were more variable for the 44 clinical care measures presented in this report than for the patient experience measures (see Figure 2). API beneficiaries received worse clinical

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<sup>1</sup> Source: Medicare enrollment data.

<sup>2</sup> The multiracial group is not included in this report because it is a heterogeneous and, therefore, difficult-to-interpret group.

<sup>3</sup> Here, “worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold, as described in the appendix. “Similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both.

care than Whites for six measures, they received care of similar quality for 23 measures, and they received better clinical care for 15 measures. Black beneficiaries received worse clinical care than Whites for 20 measures, they received care of similar quality for 20 measures, and they received better quality care for four measures. Hispanic beneficiaries received worse clinical care than White beneficiaries for 19 measures, they received care of similar quality for 18 measures, and they received better quality care for seven measures.<sup>4</sup>

### ***Gender Disparities in Health Care in Medicare Advantage***

In general, the quality of care received by women and men was similar. Women and men reported similar experiences with care for all measures of patient experience (see Figure 3). Clinical care received by women and men was of similar quality for 32 of 40 measures.<sup>5</sup> For the eight remaining measures, women received worse care than men for four measures, and they received better care for four measures.

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Patterns of racial and ethnic differences in patient experience varied some between women and men, compared with the differences that were observed among both groups combined (see Figure 4). Among both men and women, AI/AN beneficiaries reported worse experiences than White beneficiaries in getting needed prescription drugs. Among men only, AI/AN beneficiaries reported worse experiences than White beneficiaries with getting needed care and getting care quickly; among women only, AI/AN beneficiaries had higher rates of vaccination for the flu than did White beneficiaries. Among both women and men, API beneficiaries reported worse experiences than White beneficiaries with getting needed care, getting appointments and care quickly, customer service, doctor communication, care coordination, and getting needed patient drugs; they also had higher rates of vaccination for the flu. Among both women and men, Black beneficiaries and Hispanic beneficiaries reported worse experiences than White beneficiaries with getting appointments and care quickly and had lower rates of vaccination for the flu. Among men only, Hispanic beneficiaries reported worse experiences than White beneficiaries on getting needed care. Otherwise, the experiences of Black beneficiaries and Hispanic beneficiaries were similar to those of Whites, regardless of gender.

Patterns of racial and ethnic differences observed in clinical care measures were largely similar for men and women (see Figure 5). API women received worse care than White women for five measures, whereas API men received worse care than White men for six measures; of those five or six measures, four were the same for women and men. API women received better care than White women for 12 measures, whereas API men received better care than White men for 11 measures; of those 11 or 12 measures, 10 were the same for women and men. Black women received worse clinical care than White women for 19 measures; Black men received worse clinical care than White men for 18 of those 19 measures plus an additional six measures. Black women received better clinical care than White women for two measures; Black men received better clinical care than White men for those same two measures

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<sup>4</sup> For reporting HEDIS data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from CMS administrative data, surname, and residential location. Estimates of membership in the AI/AN group are less accurate than for other racial and ethnic groups; thus, this report does not show scores for AI/AN beneficiaries on the clinical care measures.

<sup>5</sup> Two clinical care measures, Breast Cancer Screening and Osteoporosis Management in Women Who Had a Fracture, pertained to women only and so were not eligible for stratified reporting by gender. Two other measures, Statin Use for Cardiovascular Disease and Medication Adherence for Cardiovascular Disease—Statins, were defined differently for men and women and so were also not eligible for stratified reporting by gender.

plus two additional measures. Hispanic women received worse clinical care than White women for 18 measures; Hispanic men received worse clinical care than White men for 14 of those 18 measures plus an additional two measures. Hispanic women received better clinical care than White women for six measures, whereas Hispanic men received better clinical care than White men for five measures; of those five or six measures, four were the same for women and men.

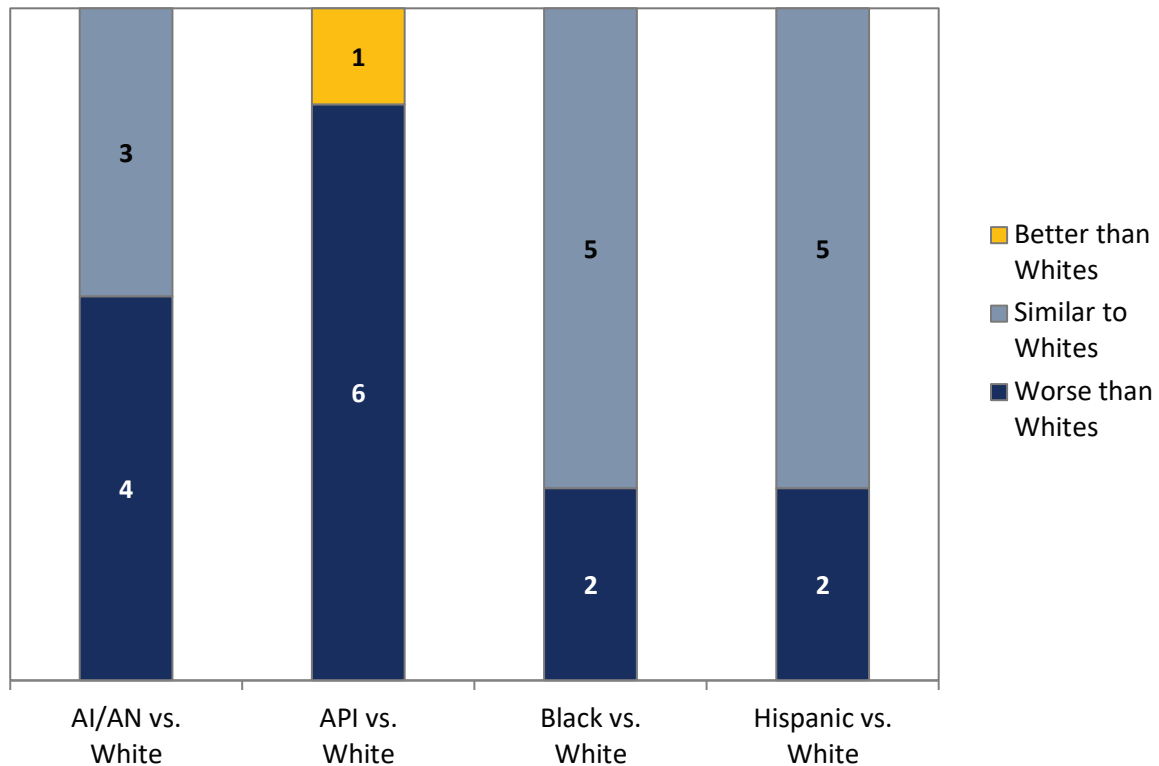
### ***Conclusion***

This report focuses on racial, ethnic, and gender differences in patient experience and clinical quality of care that exist at the national level. Although this analysis generally revealed few gender differences in care, it did reveal patterns in which (1) Black and Hispanic beneficiaries received worse clinical care than White beneficiaries on a large portion of the clinical care measures examined and (2) AI/AN and API beneficiaries reported worse patient experiences than White beneficiaries on a majority of the measures of patient experience. The results presented in this report lead to a conclusion that quality improvement efforts should focus on enhancing clinical care for Black and Hispanic beneficiaries and investigating differences between the experiences of AI/AN and API beneficiaries as compared with those of White beneficiaries. This information may be of interest to MA organizations and Medicare Part D sponsors as they consider strategies to improve the quality of care received by racial and ethnic minorities and reduce disparities.



## Figure 1. Racial and Ethnic Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of seven) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2018

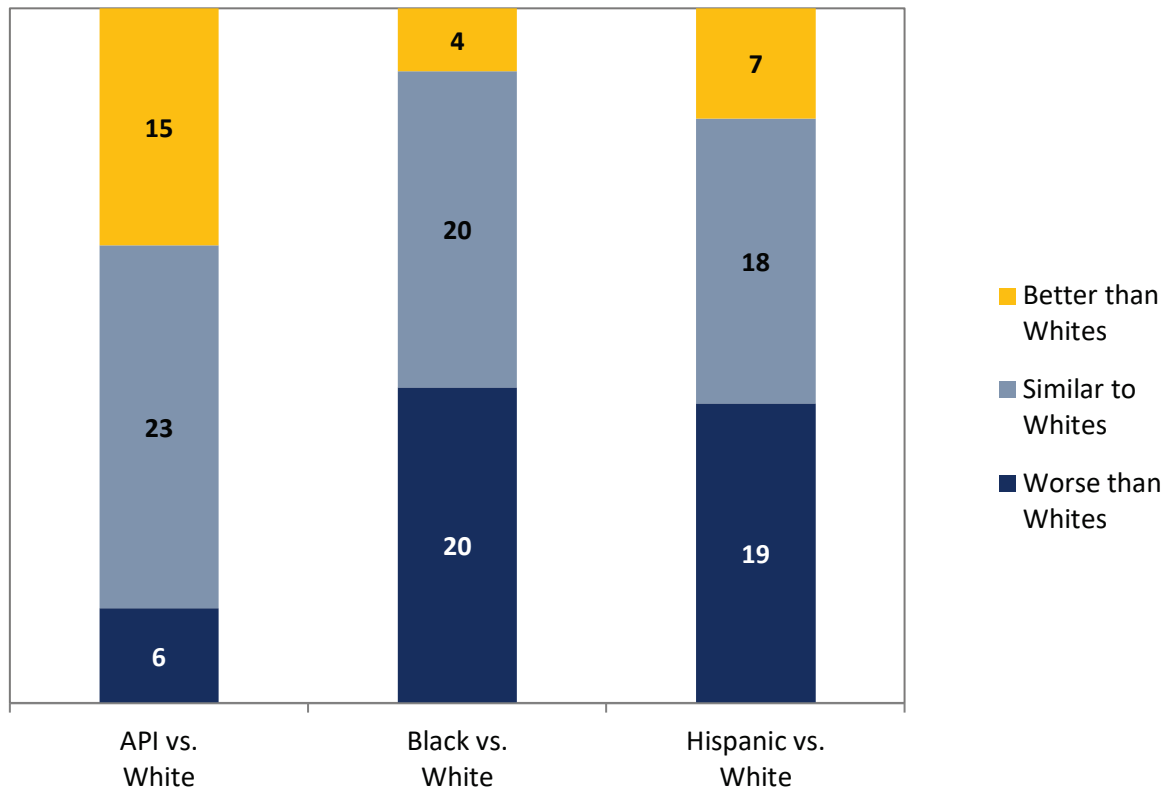


**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

## Figure 2. Racial and Ethnic Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 44) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2018

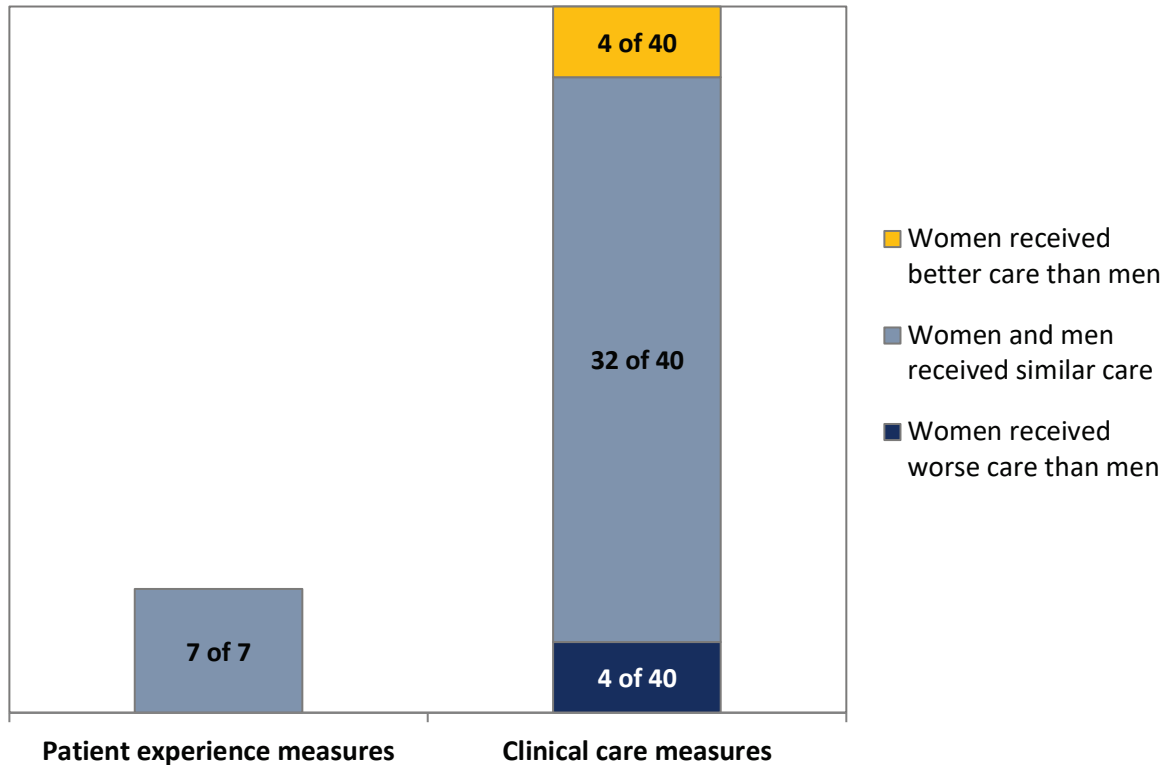


**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Figure 3. Gender Disparities in Care: All Patient Experience and Clinical Care Measures

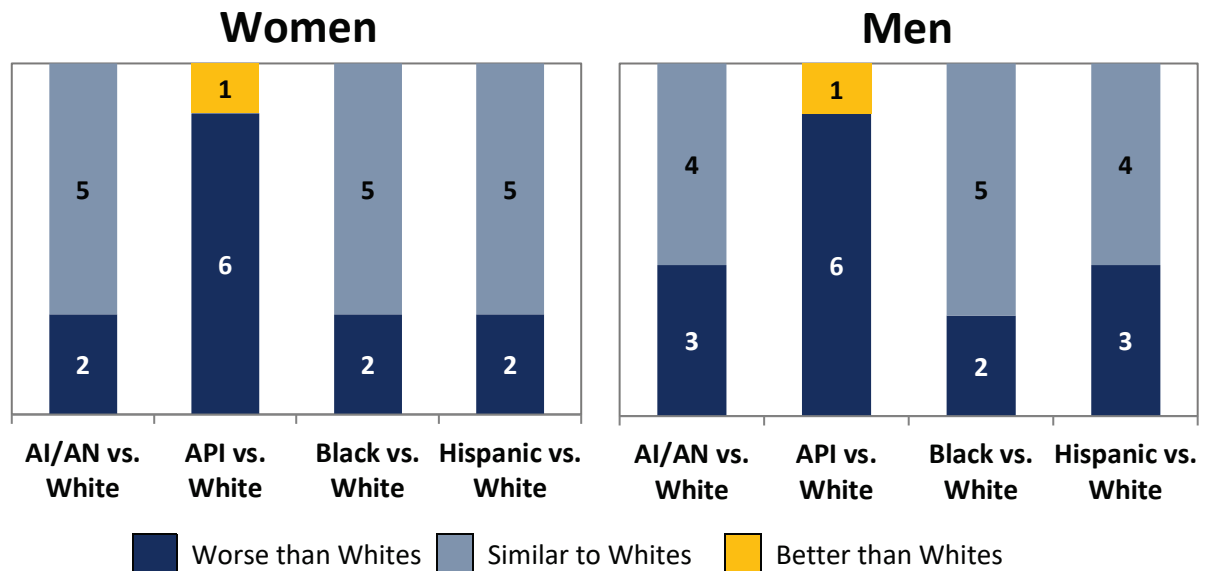
Number of patient experience measures (out of seven) and clinical care measures (out of 40) for which women received care that was worse than, similar to, or better than the care received by men in 2018



**SOURCES:** The bar on the left (patient experience measures) summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

### Figure 4. Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures

Number of patient experience measures (out of seven) for which women/men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women/men in 2018

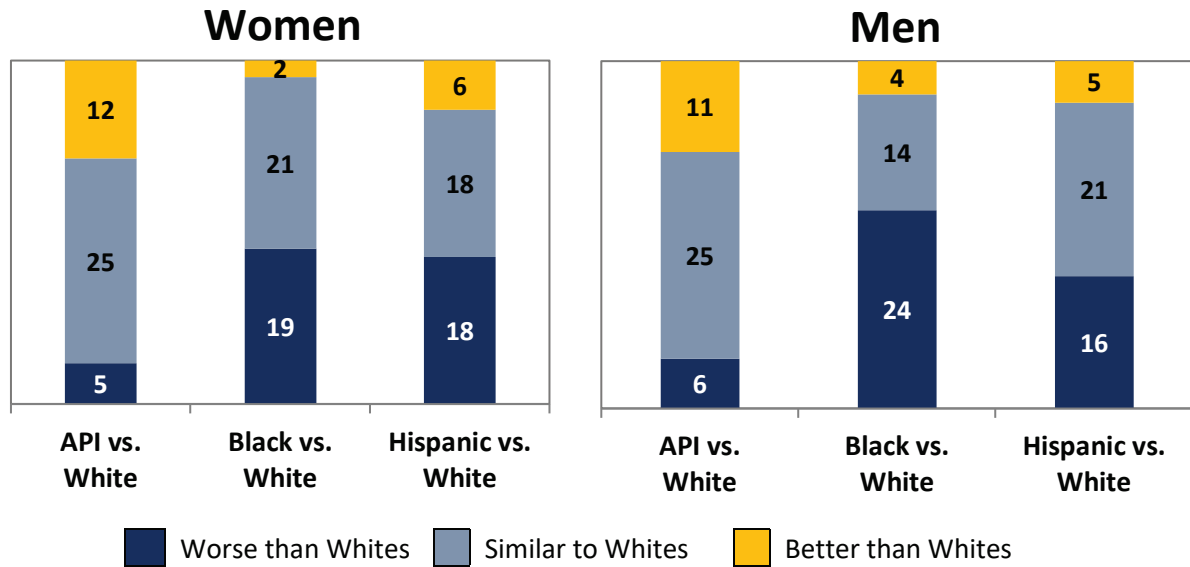


**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

## Figure 5. Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures

Number of clinical care measures (out of 42) for which women/men of selected racial and ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2018



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

## Patient Experience and Clinical Care Measures Included in This Report

### Patient Experience Measures

- Getting Needed Care
- Getting Appointments and Care Quickly
- Customer Service
- Doctors Who Communicate Well
- Care Coordination
- Getting Needed Prescription Drugs
- Annual Flu Vaccine

### Clinical Care Measures

#### Prevention and Screening

- Adult Body Mass Index (BMI) Assessment
- Breast Cancer Screening\*
- Colorectal Cancer Screening

#### Respiratory Conditions

- Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)
- Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid
- Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

#### Cardiovascular Conditions

- Controlling High Blood Pressure
- Continuous Beta-Blocker Treatment After a Heart Attack
- Statin Use in Patients with Cardiovascular Disease<sup>†</sup>
- Medication Adherence for Cardiovascular Disease—Statins<sup>†</sup>

#### Diabetes

- Diabetes Care—Blood Sugar Testing
- Diabetes Care—Eye Exam
- Diabetes Care—Kidney Disease Monitoring
- Diabetes Care—Blood Pressure Controlled
- Diabetes Care—Blood Sugar Controlled
- Statin Use in Patients with Diabetes
- Medication Adherence for Diabetes—Statins

#### Musculoskeletal Conditions

- Rheumatoid Arthritis Management
- Osteoporosis Management in Women Who Had a Fracture\*

#### Behavioral Health

- Antidepressant Medication Management—Acute Phase Treatment
- Antidepressant Medication Management—Continuation Phase Treatment
- Follow-up After Hospital Stay for Mental Illness (within seven days of discharge)
- Follow-up After Hospital Stay for Mental Illness (within 30 days of discharge)
- Follow-up After Emergency Department (ED) Visit for Mental Illness (within seven days of discharge)
- Follow-up After ED Visit for Mental Illness (within 30 days of discharge)
- Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (within seven days of discharge)
- Follow-up After ED Visit for Alcohol and Other Drug Abuse or Dependence (within 30 days of discharge)
- Initiation of Alcohol and Other Drug Dependence Treatment
- Engagement of Alcohol and Other Drug Dependence Treatment

#### Medication Management and Care Coordination

- Medication Reconciliation After Hospital Discharge
- Transitions of Care—Notification of Inpatient Admission
- Transitions of Care—Receipt of Discharge Information
- Transitions of Care—Patient Engagement After Inpatient Discharge
- Transitions of Care—Medication Reconciliation After Inpatient Discharge
- Follow-up After ED Visit for People with High-Risk Multiple Chronic Conditions

## Patient Experience and Clinical Care Measures Included in This Report (continued)

### Clinical Care Measures

#### Overuse/Appropriate Use

- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia
- Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls
- Avoiding Use of High-Risk Medications in the Elderly
- Avoiding Use of Opioids at High Dosage
- Avoiding Use of Opioids from Multiple Prescribers
- Avoiding Use of Opioids from Multiple Pharmacies
- Avoiding Use of Opioids from Multiple Prescribers and Pharmacies

#### Access/Availability of Care

- Older Adults' Access to Preventive/Ambulatory Services

\* These measures are specific to women and are thus not included in the set of comparisons by gender.

† These measures are defined differently for men and women and thus are not included in the set of comparisons by gender. They are, however, included in the set of comparisons by race and ethnicity within gender.

# **Overview and Methods**

## **Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage**



## **Overview**

This report presents summary information on the quality of health care received in 2018 by Medicare beneficiaries enrolled in Medicare Advantage (MA) plans nationwide. Previous versions of this report presented information on the quality of health care received in 2016 and 2017. In 2018, 31.6 percent of Medicare beneficiaries were enrolled in MA. Two types of quality of care data are presented in this report: (1) measures of patient experience, which describe how well the care patients receive meets their needs for such things as timely appointments, respectful care, clear communication, and access to information; and (2) measures of clinical care, which describe the extent to which patients receive appropriate screening and treatment for specific health conditions.

The Institute of Medicine (IOM, now the National Academy of Medicine) has identified the equitable delivery of care as a hallmark of quality (IOM, 2001). Assessing equitability in the delivery of care requires making comparisons of quality by personal characteristics of patients, such as gender, race, and ethnicity. Three sets of such comparisons are presented in this report. In the first set, quality of care for racial and ethnic minority groups is compared with quality of care for Whites. In the second, quality of care for women is compared with quality of care for men. In the third, quality of care for racial and ethnic minority groups is compared with quality of care for Whites of the same gender. As in the 2017 and 2018 reports, this information—which may be of interest to Medicare beneficiaries, MA organizations, Part D sponsors, and federal policymakers—is being presented in a single report to provide a more comprehensive understanding of the ways in which care differs by race and ethnicity, gender, and the intersection of these two characteristics. The focus of this report is on differences that exist at the national level. Interested readers can find information about health care quality for specific Medicare plans and information about racial and ethnic differences in health care quality within Medicare plans at <https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/statistics-and-data/stratified-reporting.html>.

## **Data Sources**

In all, this report provides data regarding seven patient experience measures and 44 clinical care measures. The set of patient experiences measures presented in this report is the same as the set reported on in the 2017 and 2018 reports (reporting 2016 and 2017 data, respectively). The set of clinical care measures presented in this report differs from the set presented in the earlier reports. Two clinical measures presented in the previous reports (Appropriate Monitoring of Patients Taking Long-Term Medications and Asthma Medication Ratio in Older Adults) were discontinued and thus are not presented in this report. Thirteen clinical measures are included in this report that were not included in the earlier reports. The newly included measures consist of four behavioral health measures, five measures about medication management and care coordination, and four measures about overuse of opioids.

Patient experience data were collected from a national survey of Medicare beneficiaries, known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS®) survey. This survey is administered each year; the data in this report are from the 2018 Medicare CAHPS survey (detailed information about this survey can be found at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/mcahps.html>). Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get the prescription drugs they need.

Clinical care data were gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from MA plans

nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS®; detailed information about these data can be found at <https://www.ncqa.org/hedis/measures/>). In this report, clinical care measures are grouped into nine categories: prevention and screening, respiratory conditions, cardiovascular conditions, diabetes, musculoskeletal conditions, behavioral health, medication management and care coordination, overuse/appropriateness, and access/availability of care. Although the annual flu vaccination measure is a HEDIS measure, it is collected via the Medicare CAHPS survey and so is included with the patient experience measures in this report. Two of the clinical care measures presented in this report, one pertaining to breast cancer screening and the other to management of osteoporosis, are specific to women. Thus, the set of comparisons by gender and the set of comparisons by race and ethnicity within gender exclude these two measures. Two other clinical care measures, both dealing with statin therapy for patients with cardiovascular disease, are defined differently for men and women and thus are excluded from the set of comparisons by gender. The HEDIS data reported here were collected in 2018. Whereas all patient experience measures are applicable to beneficiaries aged 18 years and older, certain HEDIS measures apply to beneficiaries in a more limited age range, as noted throughout the report.

In 2018, an estimated 69.3 percent of all MA beneficiaries were White (versus 75.5 percent of the general Medicare population<sup>6</sup>), 13.4 percent were Hispanic (versus 9.2 percent), 10.7 percent were Black (versus 10.6 percent), 4.0 percent were Asians or Pacific Islanders (API; versus 3.3 percent), 2.4 percent were multiracial (not included in this report;<sup>7</sup> versus 0.9 percent), and 0.4 percent were American Indians or Alaska Natives (AI/AN; versus 0.5 percent). An estimated 56.5 percent of all MA beneficiaries were female (versus 54.4 percent of the general Medicare population), and 43.5 percent were male (versus 45.6 percent). For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience measures are provided for all racial and ethnic groups except multiracial. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care measures are provided for the same groups except for American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine whether a beneficiary is in this group.

### **Reportability of Information**

Sample size criteria were used to determine whether a score on a measure was reportable for a particular group. Scores based on 400 or more observations were considered sufficiently precise for reporting unflagged. Scores based on more than 99 but fewer than 400 observations were considered low in precision and were flagged as such. In this report, flagged scores—which should be regarded as tentative information—are shown unbolded with a superscript symbol appended; the symbol links to a note at the bottom of the chart that cautions about the precision of the score. Scores based on 99 or fewer observations are suppressed (i.e., not reported). When a score is suppressed for a particular group, a note appears at the bottom of the relevant chart saying that there were not enough data from that group to make a racial and ethnic comparison on the measure.

### ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

Section I of the report begins with a stacked bar chart showing the number of patient experience measures (out of seven) for which members of each racial and ethnic minority group reported

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<sup>6</sup> Source: Medicare enrollment data.

<sup>7</sup> The multiracial group is not included in this report because it is a heterogeneous and, therefore, difficult-to-interpret group.

experiences of care that were worse than, similar to, or better than the experiences reported by Whites.<sup>8</sup> Following this stacked bar chart are separate, unstacked bar charts for each patient experience measure. These charts show the average score for each racial and ethnic group on a 0–100 scale. The average score represents the percentage of the best possible score for a given demographic group for that measure. For example, consider a measure for which the best possible score is 4 and the worst possible score is 1. If a given group’s score on that measure is 3.5, then that group’s score on a 0–100 scale is  $([3.5 - 1] / [4 - 1]) \times 100 = 83.3$ . After the patient experience measures, Section I presents a stacked bar chart showing the number of clinical care measures (out of 44) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following this stacked bar chart are separate, unstacked bar charts for each clinical care measure that show the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure (e.g., a test or treatment).

### ***Gender Disparities in Health Care in Medicare Advantage***

Section II of the report begins with a pair of stacked bar charts that show the number of patient experience measures (out of seven) and the number of clinical care measures (out of 40) for which women received care that was worse than, similar to, or better than the care received by men. Gender data for each of the patient experience and clinical care measures are then presented in the form of unstacked bar charts.

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Section III of the report begins with a pair of stacked bar charts that show, separately for women and men, the number of patient experience measures (out of seven) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. Following these stacked bar charts are separate, unstacked bar charts for each patient experience measure. These charts show, separately for men and women, the average score for each racial and ethnic group on a 0–100 scale. After the patient experience measures, Section III presents a pair of stacked bar charts that show, separately for men and women, the number of clinical care measures (out of 42) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following these stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for men and women, the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure.

For detailed information on data sources and analytic methods, see the appendix.

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<sup>8</sup> Here, “similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both, as described in the appendix. “Worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold.



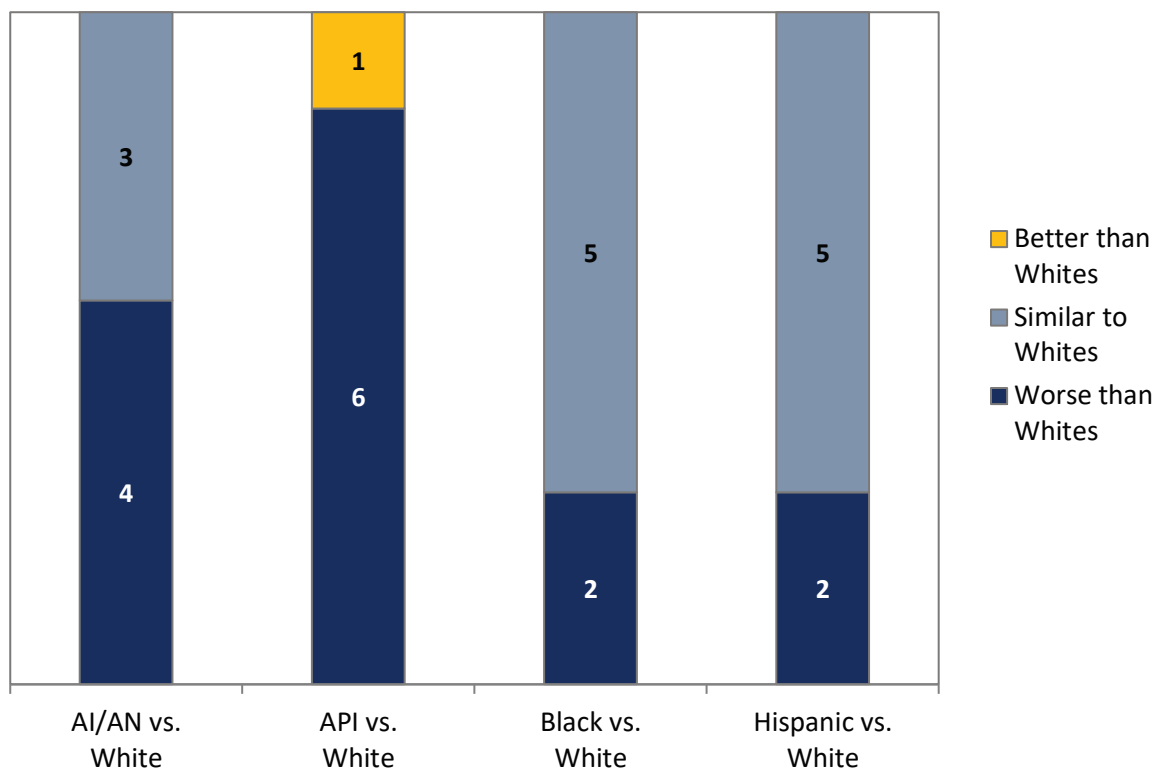
# **Section I:**

## **Racial and Ethnic Disparities in Health Care in Medicare Advantage**



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of seven) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2018



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**AI/AN beneficiaries received worse care than White beneficiaries**

- Getting needed care
- Getting appointments and care quickly
- Getting needed prescription drugs
- Annual flu vaccine

**API beneficiaries received worse care than White beneficiaries**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API beneficiaries received better care than White beneficiaries**

- Annual flu vaccine

**Black beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Annual flu vaccine

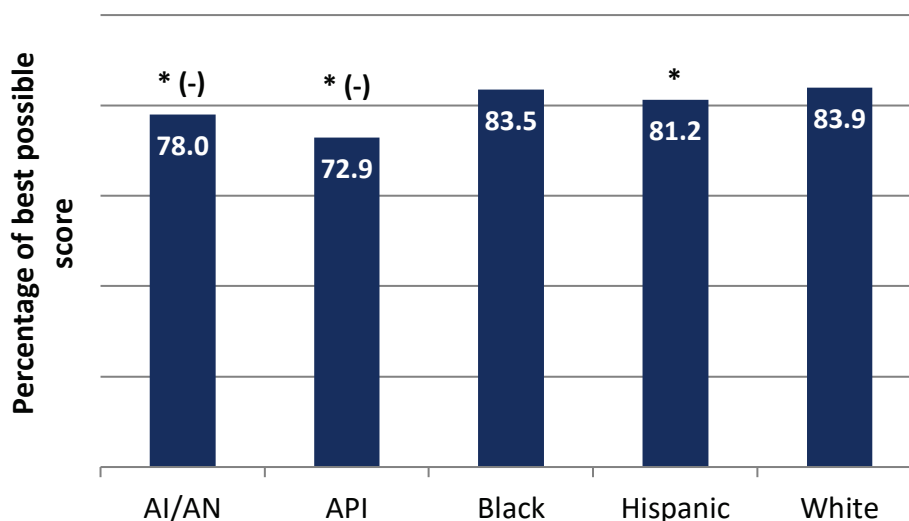
**Hispanic beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Annual flu vaccine

## Patient Experience

### Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse<sup>‡</sup> experiences getting needed care than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks reported experiences getting needed care that were similar to the experiences reported by Whites.
- Hispanics reported worse experiences getting needed care than Whites reported. The difference between Hispanics and Whites was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

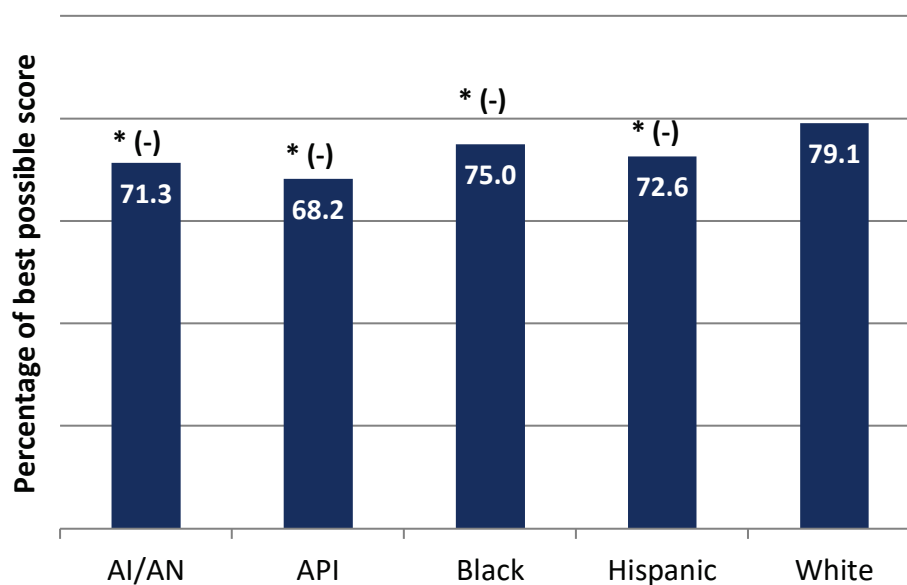
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>‡</sup> Unlike on the previous two pages, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives, Asians or Pacific Islanders, Blacks, and Hispanics reported worse experiences getting appointments and care quickly than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

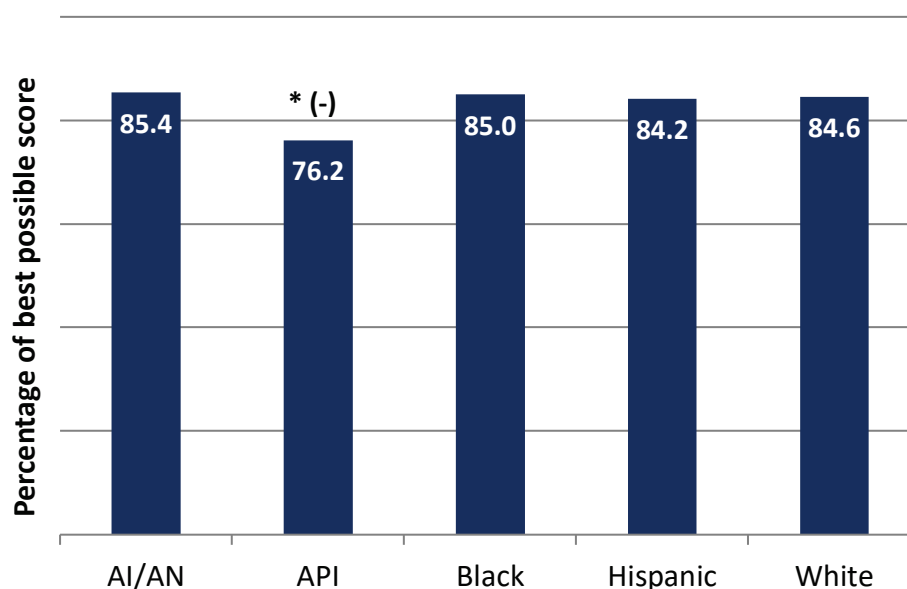
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.



## Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives, Blacks, and Hispanics reported experiences with customer service that were similar to the experiences that Whites reported.
- Asians or Pacific Islanders reported worse experiences with customer service than Whites reported. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

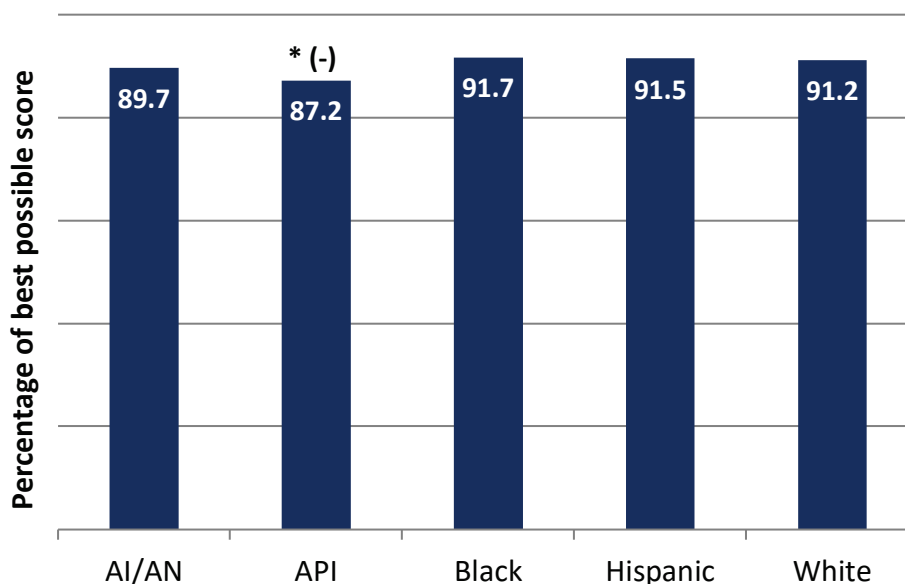
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months health plan customer service staff provided the information or the help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives, Blacks, and Hispanics reported experiences with doctor communication that were similar to the experiences reported by Whites.
- Asians or Pacific Islanders reported worse experiences with doctor communication than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

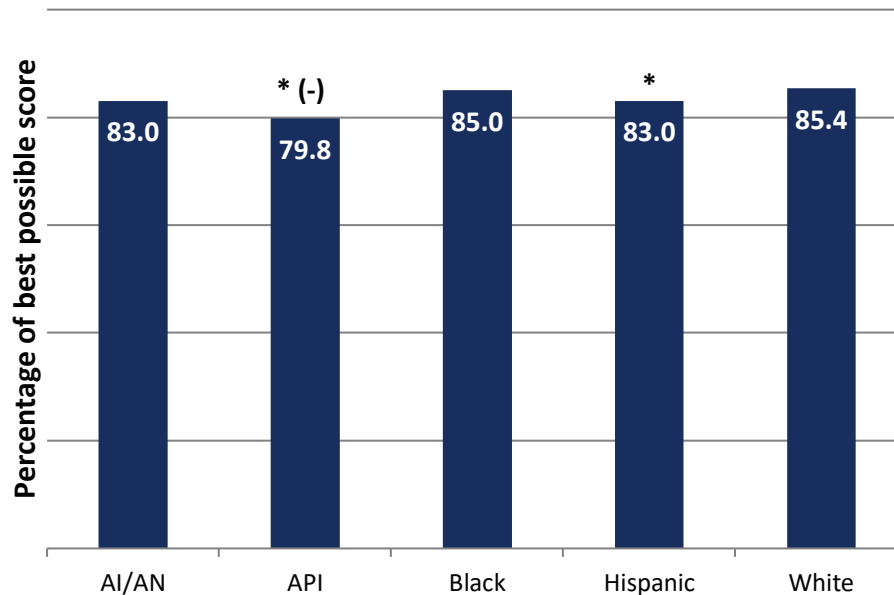
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patients' care was coordinated,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders reported worse experiences with care coordination than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.
- Hispanics reported worse experiences with care coordination than Whites reported. The difference between Hispanics and Whites was less than 3 points on a 0–100 scale.
- American Indians or Alaska Natives and Blacks reported experiences with care coordination that were similar to the experiences reported by Whites.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

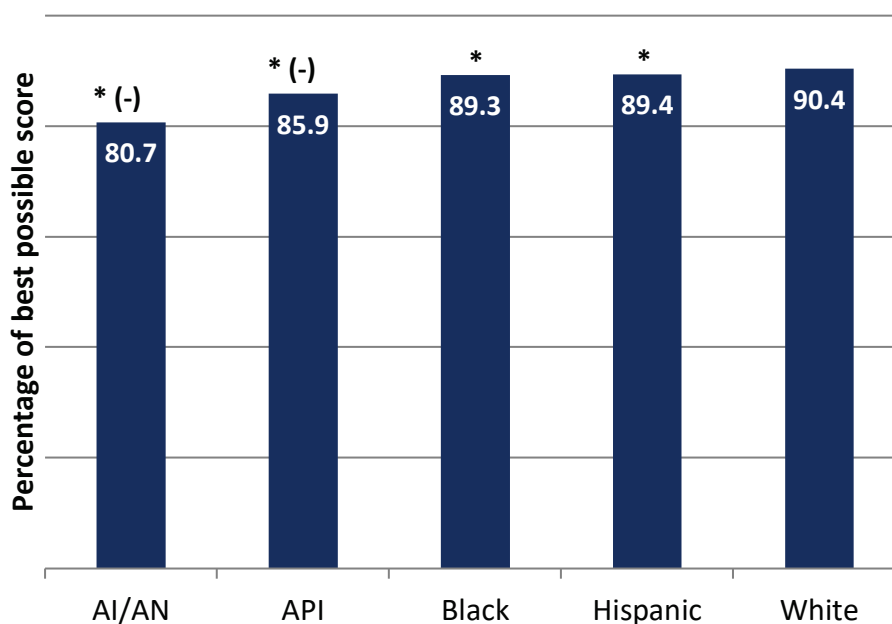
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

## Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse experiences getting needed prescription drugs than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks and Hispanics reported worse experiences getting needed prescription drugs than Whites reported. The difference between each of these groups and Whites was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

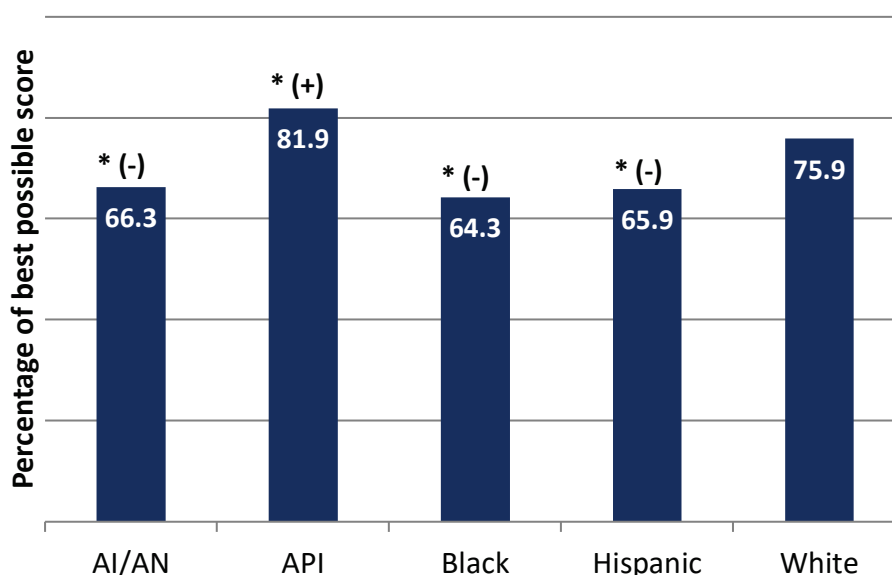
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

## Annual Flu Vaccine

Percentage of MA enrollees who got a vaccine (flu shot), by race and ethnicity, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- American Indians or Alaska Natives, Blacks, and Hispanics were less likely than Whites to have received the flu vaccine. The difference between each of these groups and Whites was greater than 3 percentage points.
- Asians or Pacific Islanders were more likely than Whites to have received the flu vaccine. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.

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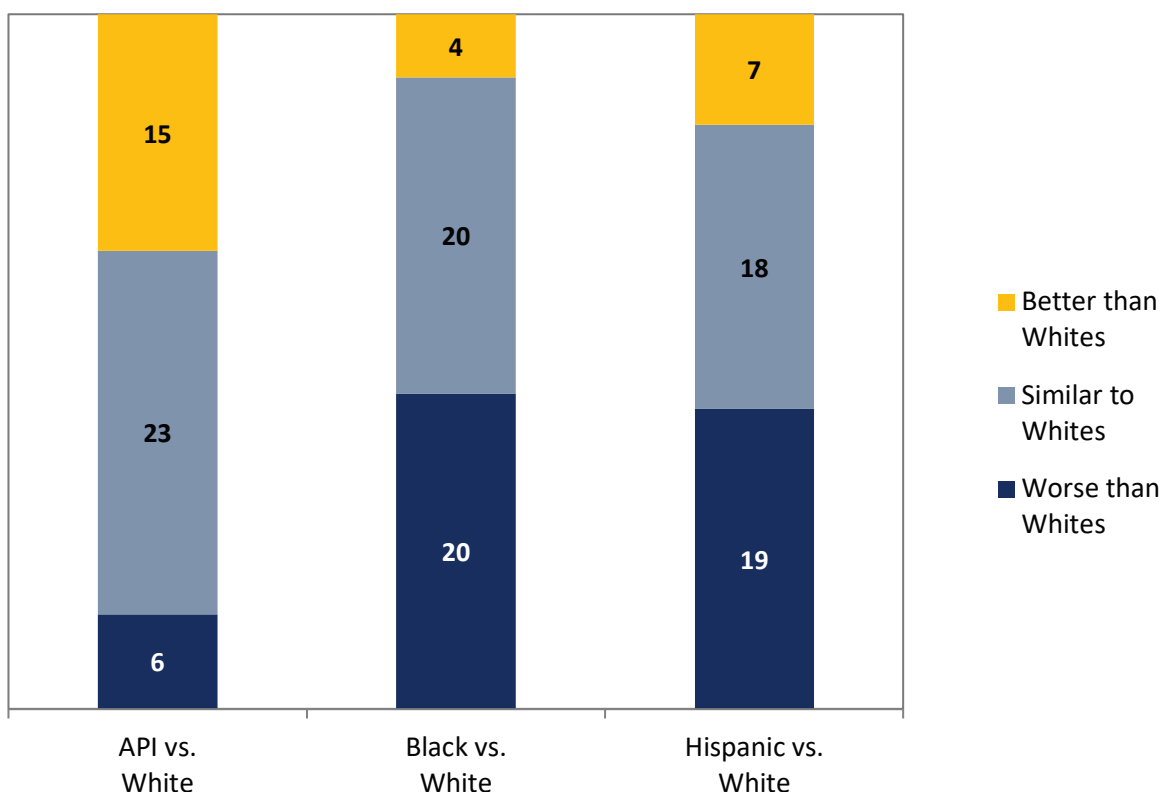
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 44) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2018



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**API beneficiaries received worse care than White beneficiaries**

- Controlling high blood pressure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol and other drug dependence treatment
- Transitions of care—notification of inpatient admission
- Transitions of care—medication reconciliation after inpatient discharge

**API beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Colorectal cancer screening
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Osteoporosis management in women who had a fracture
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of high-risk medications in the elderly
- Avoiding use of opioids at high dosage

**Black beneficiaries received worse care than White beneficiaries**

- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after emergency department (ED) visit for mental illness (within seven days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for alcohol and other drug abuse or dependence (within seven days of discharge)
- Follow-up after ED visit for alcohol and other drug abuse or dependence (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—patient engagement after inpatient discharge
- Transitions of care—medication reconciliation after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of opioids at high dosage

**Hispanic beneficiaries received worse care than White beneficiaries**

- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol and other drug dependence treatment
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Transitions of care—medication reconciliation after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of opioids from multiple pharmacies
- Avoiding use of opioids from multiple prescribers and pharmacies

**Hispanic beneficiaries received better care than White beneficiaries**

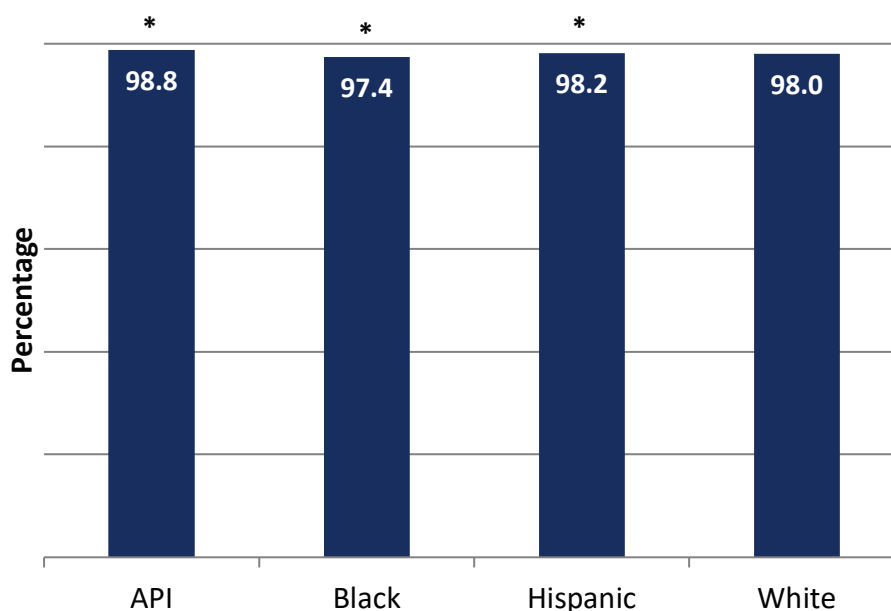
- Breast cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Statin use in patients with diabetes
- Osteoporosis management in women who had a fracture
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)



## Clinical Care: Prevention and Screening

### Adult BMI Assessment

Percentage of MA enrollees aged 18 to 74 years who had an outpatient visit whose body mass index (BMI) was documented in the past two years, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics were more likely than Whites to have had their BMI documented. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks were less likely than Whites to have had their BMI documented. The difference between Blacks and Whites was less than 3 percentage points.

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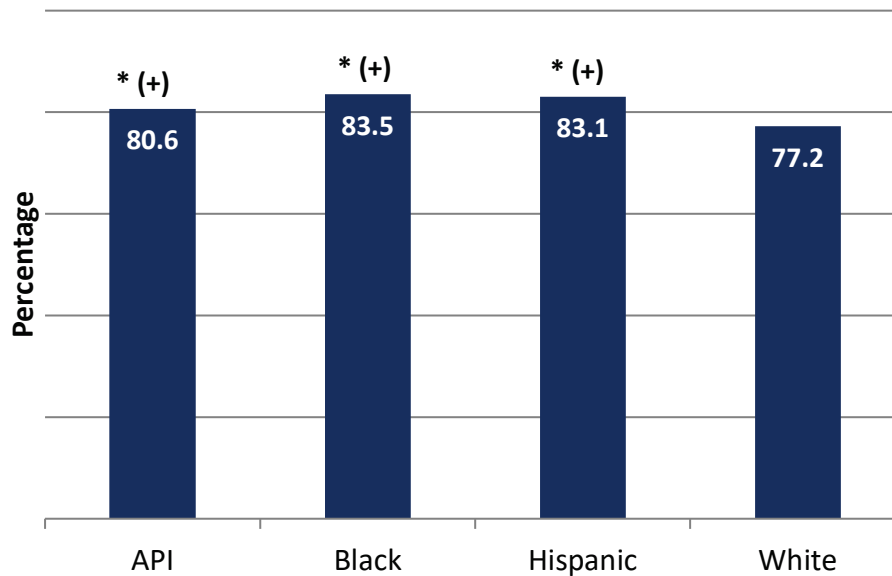
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites

## Breast Cancer Screening

Percentage of MA enrollees (women) aged 50 to 74 years who had appropriate screening for breast cancer, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asian or Pacific Islander, Black, and Hispanic women were more likely than White women to have been appropriately screened for breast cancer. The difference between each of these groups of women and White women was greater than 3 percentage points.

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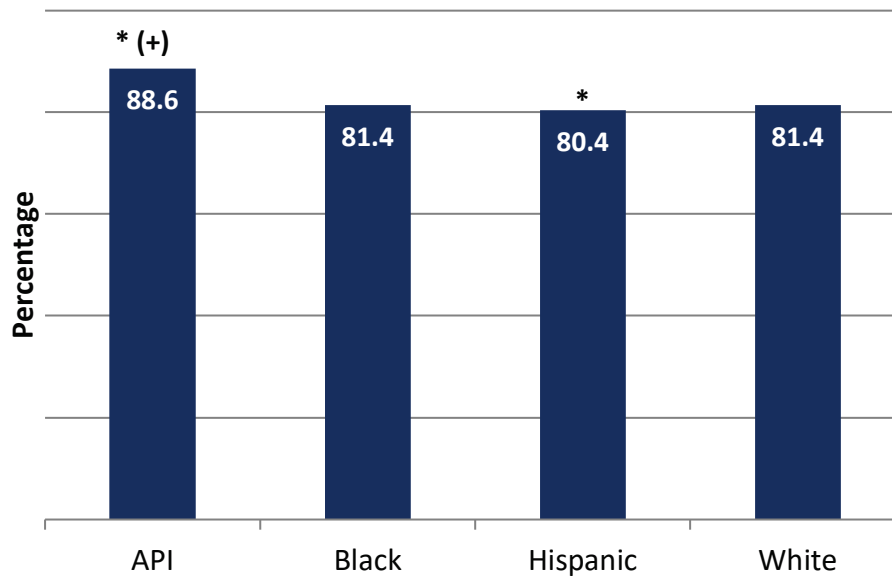
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders were more likely than Whites to have been appropriately screened for colorectal cancer. The difference between these groups was greater than 3 percentage points.
- Blacks were about as likely as Whites to have been appropriately screened for colorectal cancer.
- Hispanics were less likely than Whites to have been appropriately screened for colorectal cancer. The difference between Hispanics and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

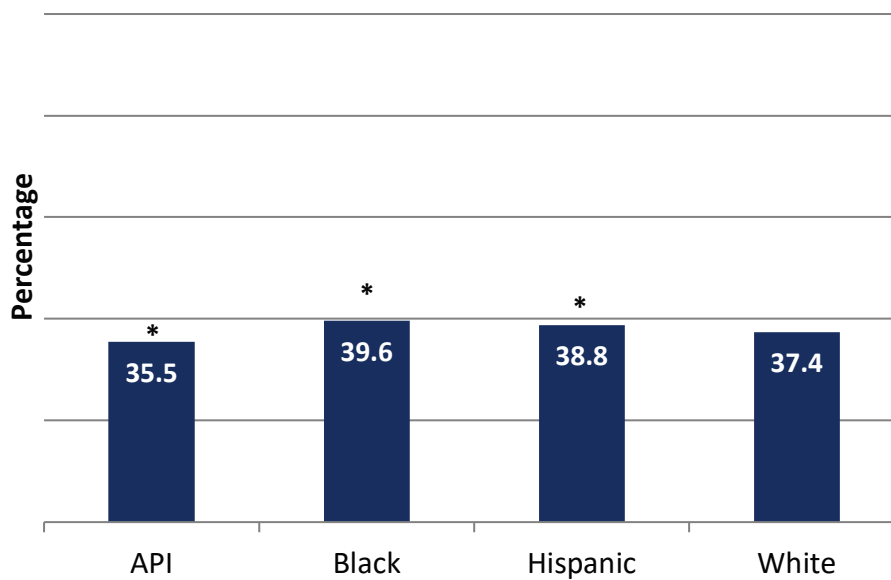
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Respiratory Conditions

### Testing to Confirm COPD

**Percentage of MA enrollees aged 40 years and older with a new diagnosis of chronic obstructive pulmonary disease (COPD) or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race and ethnicity, 2018**



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders with a new diagnosis of COPD or newly active COPD were less likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics with a new diagnosis of COPD or newly active COPD were more likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between each of these groups and Whites was less than 3 percentage points

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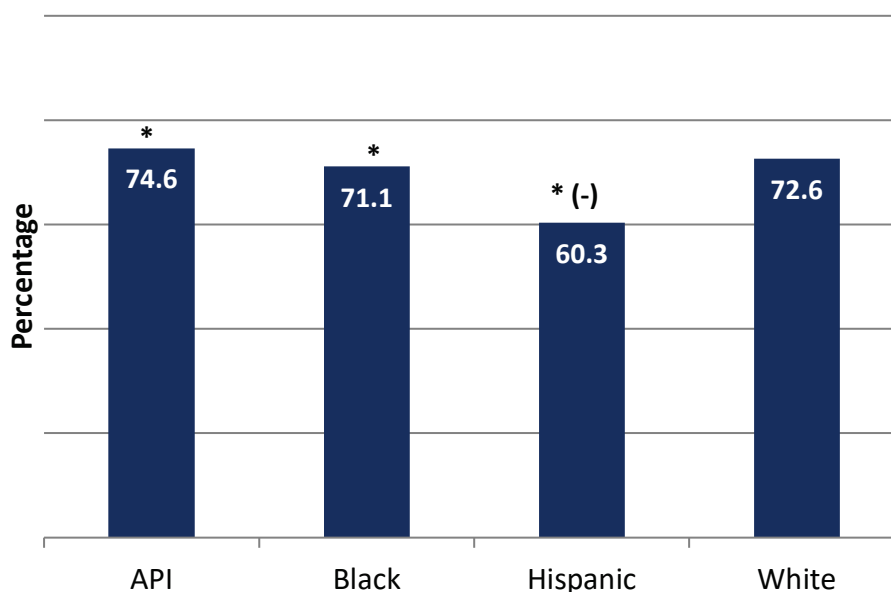
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Blacks and Whites was less than 3 percentage points. The difference between Hispanics and Whites was greater than 3 percentage points.

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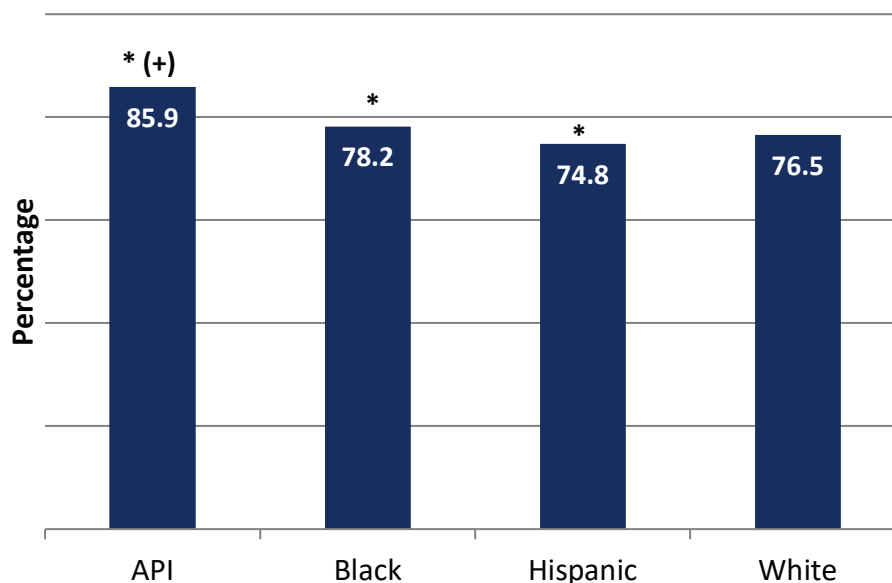
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Blacks and Whites was less than 3 percentage points.
- Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanics and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

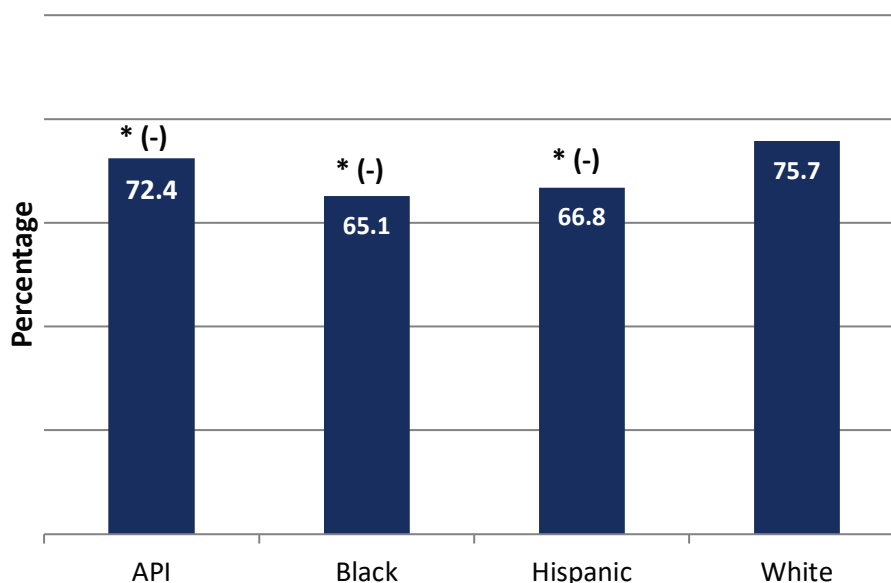
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA enrollees aged 18 to 85 years with a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who had a diagnosis of hypertension were less likely than Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between each of these groups and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

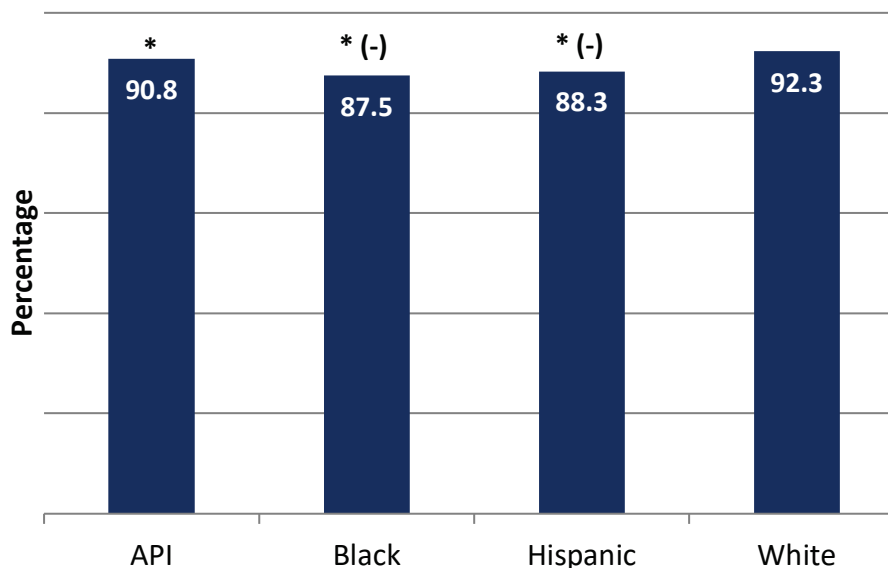
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) who received persistent beta-blocker treatment for six months after discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between each of these groups and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

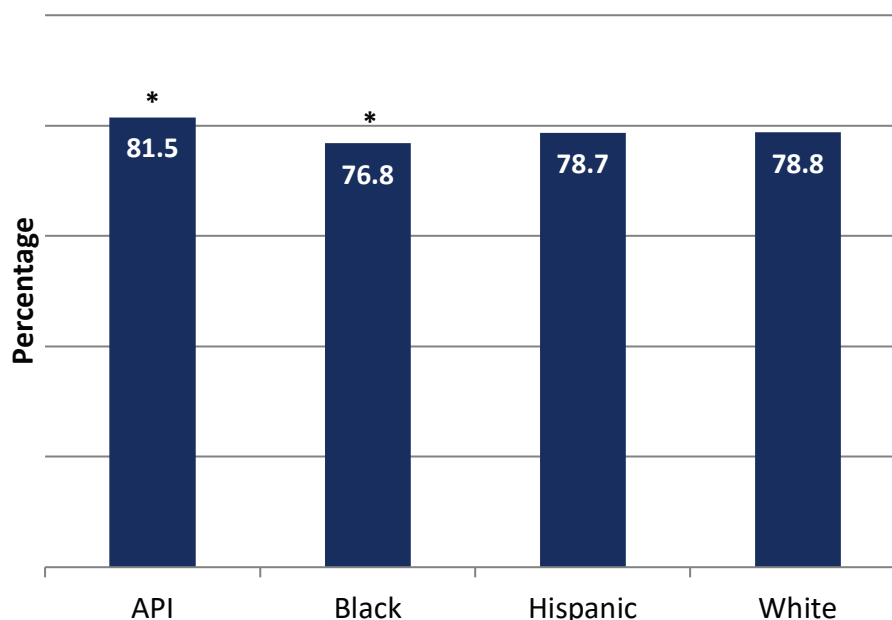
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



### Statin Use in Patients with Cardiovascular Disease

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders with ASCVD were more likely than Whites with ASCVD to have received statin therapy. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks with ASCVD were less likely than Whites with ASCVD to have received statin therapy. The difference between Blacks and Whites was less than 3 percentage points.
- Hispanics with ASCVD were about as likely as Whites with ASCVD to have received statin therapy.

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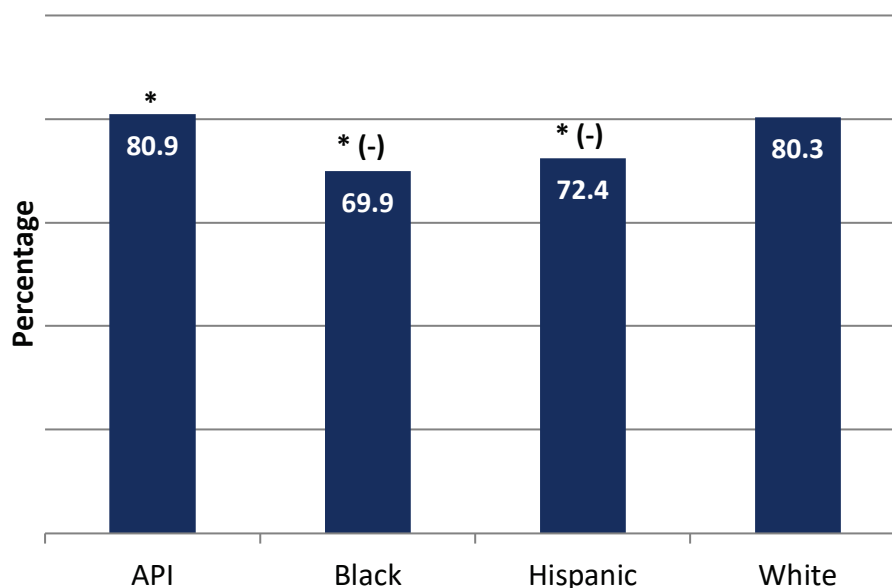
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders with ASCVD were more likely than Whites with ASCVD to have had proper statin medication adherence. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics with ASCVD were less likely than Whites with ASCVD to have had proper statin medication adherence. The difference between each of these groups and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

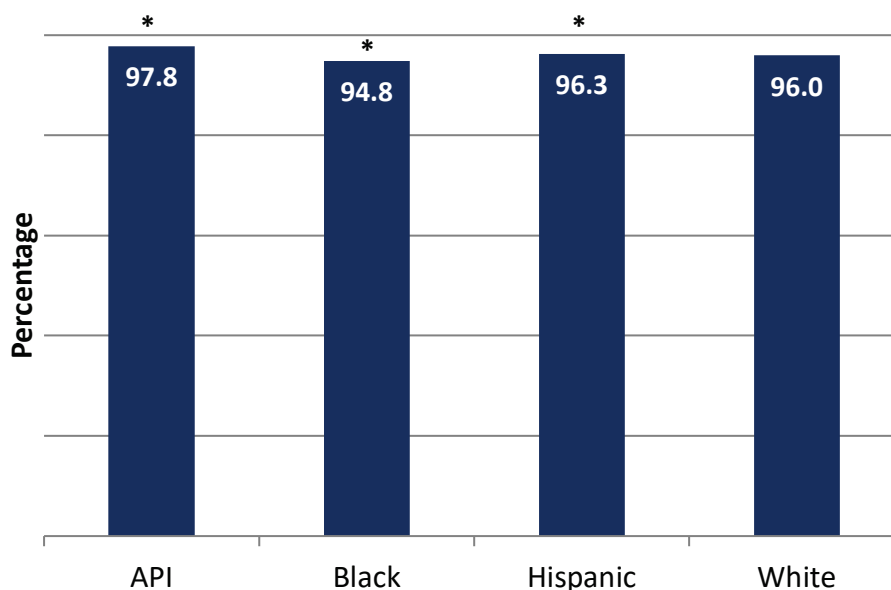
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Blacks and Whites was less than 3 percentage points.

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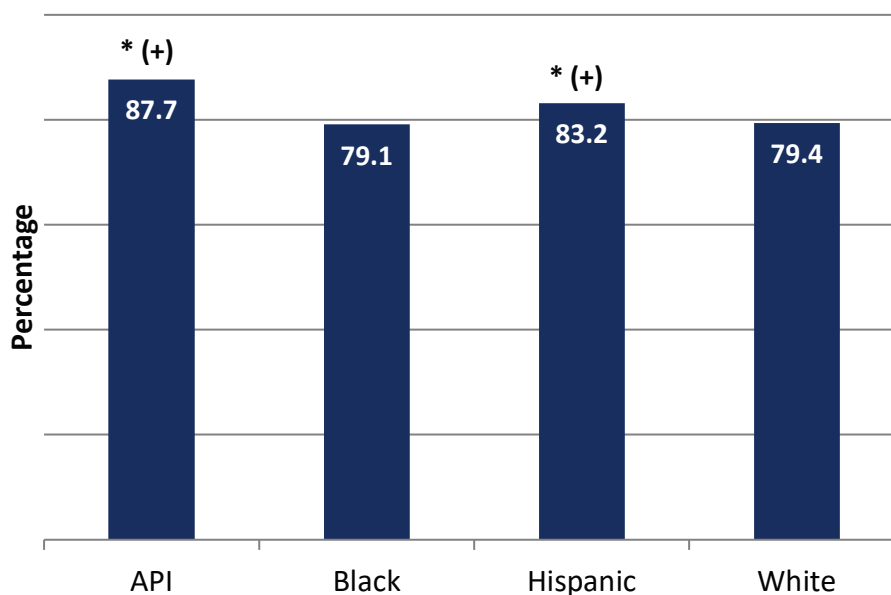
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Diabetes Care—Eye Exam

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had an eye exam in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were about as likely as Whites with diabetes to have had an eye exam in the past year.

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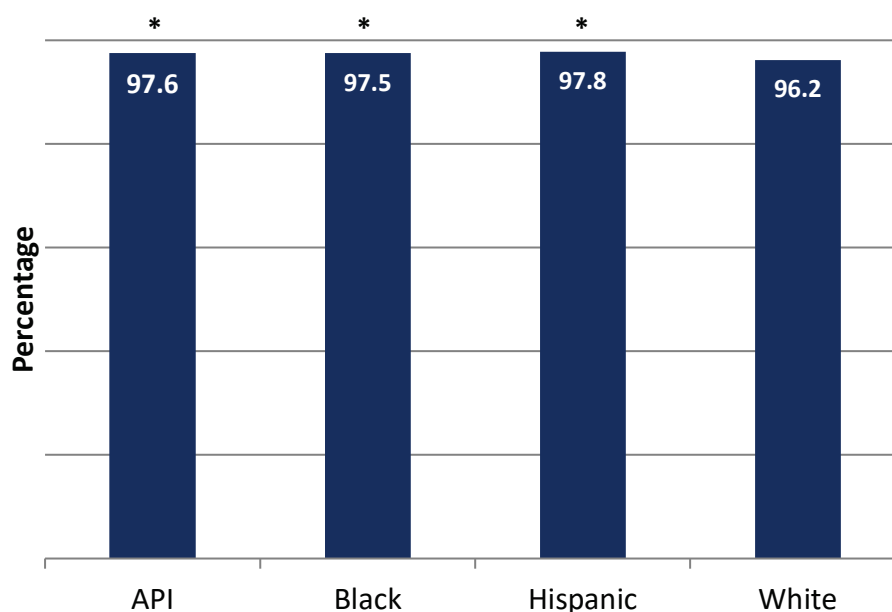
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Diabetes Care—Kidney Disease Monitoring

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with diabetes were more likely than Whites with diabetes to have had medical attention for nephropathy in the past year. The difference between each of these groups and Whites was less than 3 percentage points.

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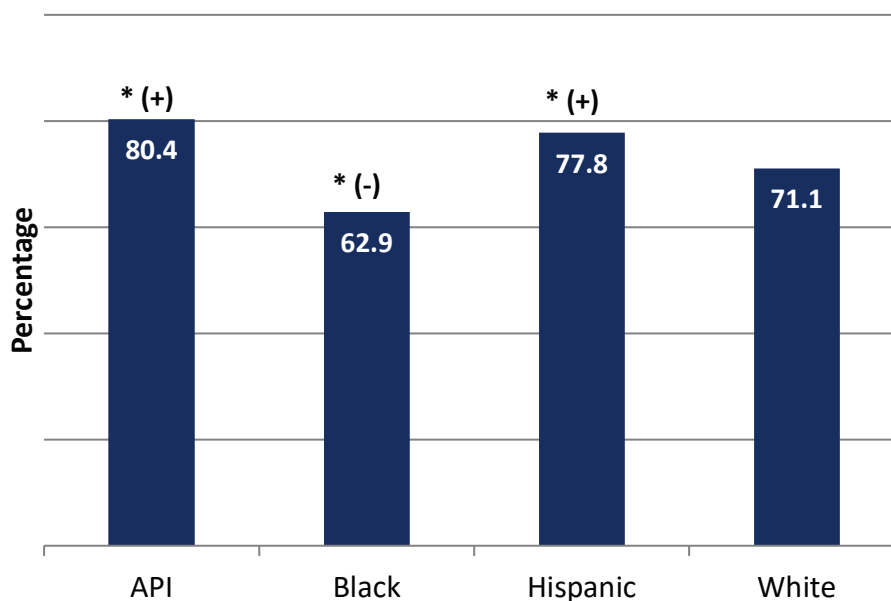
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood pressure under control. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have their blood pressure under control. The difference between Blacks and Whites was greater than 3 percentage points.

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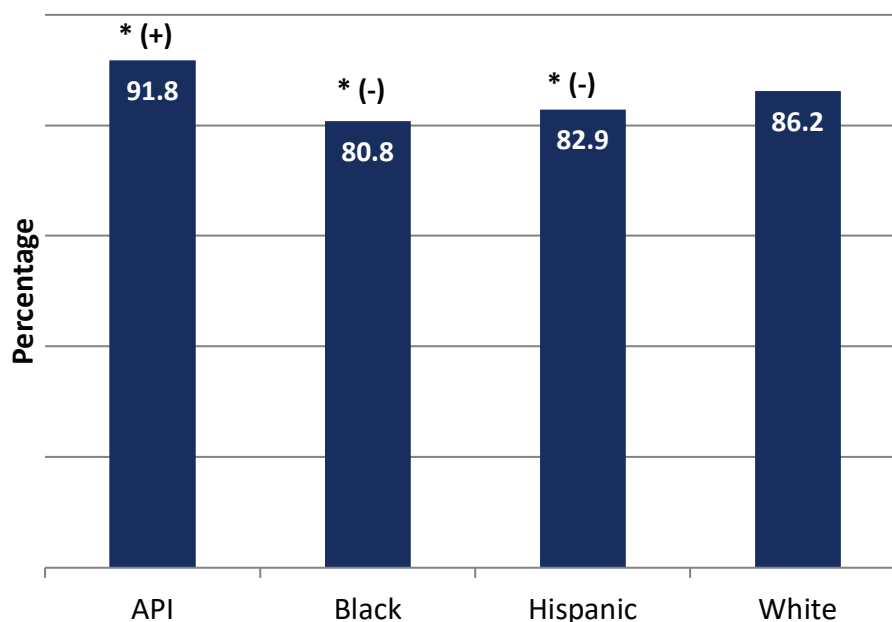
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have their blood sugar level under control. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have their blood sugar level under control. The difference between each of these groups and Whites was greater than 3 percentage points.

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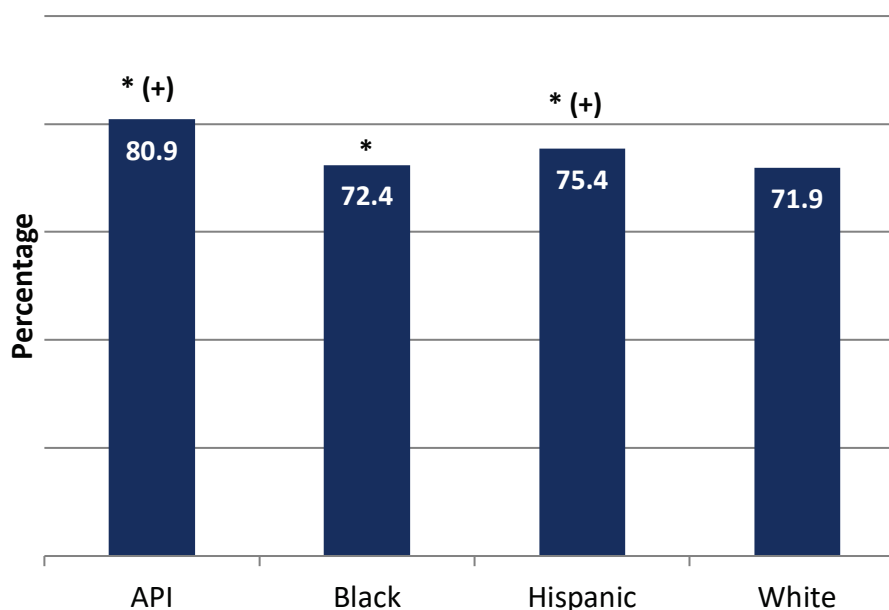
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with diabetes were more likely than Whites with diabetes to have received statin therapy. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites. The difference between Blacks and Whites was less than 3 percentage points.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

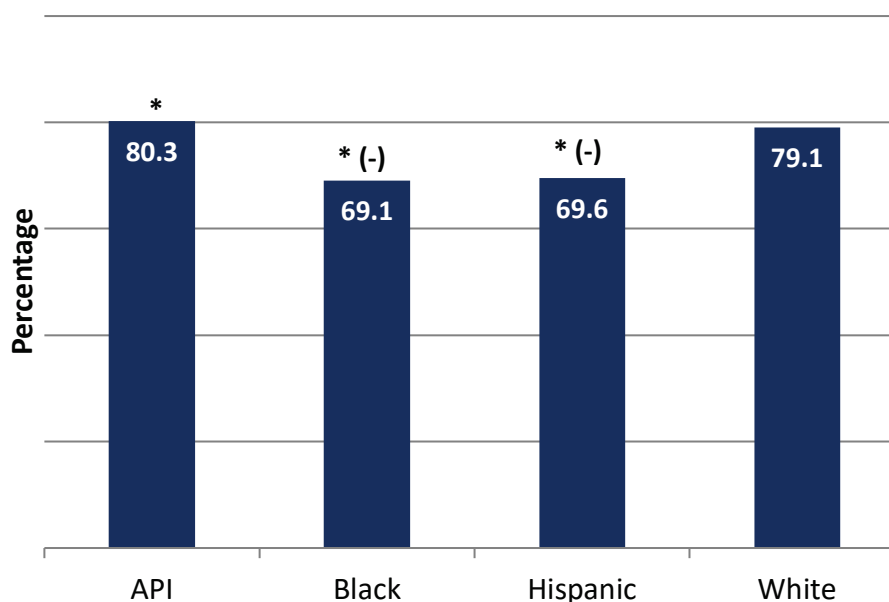
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



### Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have had proper statin medication adherence. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have had proper statin medication adherence. The difference between each of these groups and Whites was greater than 3 percentage points.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

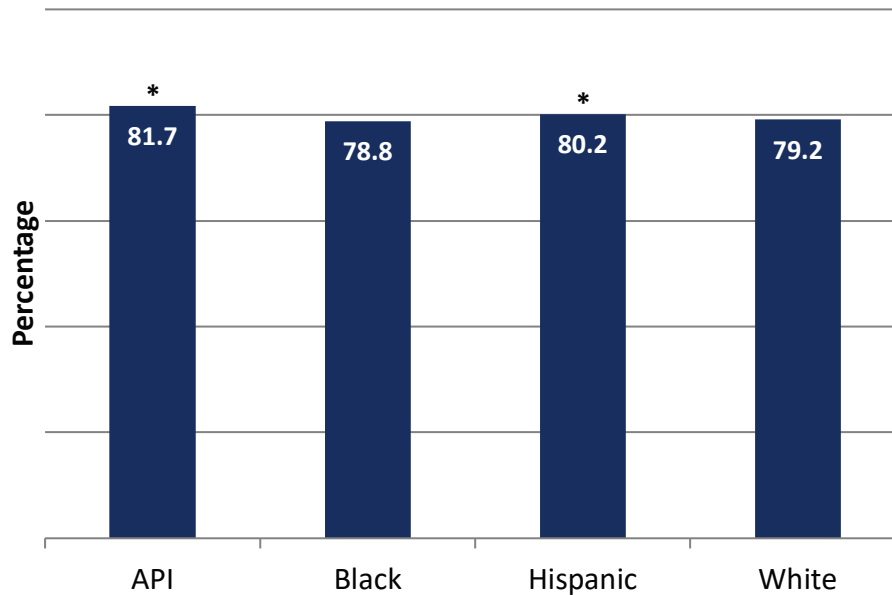
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Musculoskeletal Conditions

### Rheumatoid Arthritis Management

**Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race and ethnicity, 2018**



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics who were diagnosed with rheumatoid arthritis were more likely than Whites who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks who were diagnosed with rheumatoid arthritis were about as likely as Whites who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD.

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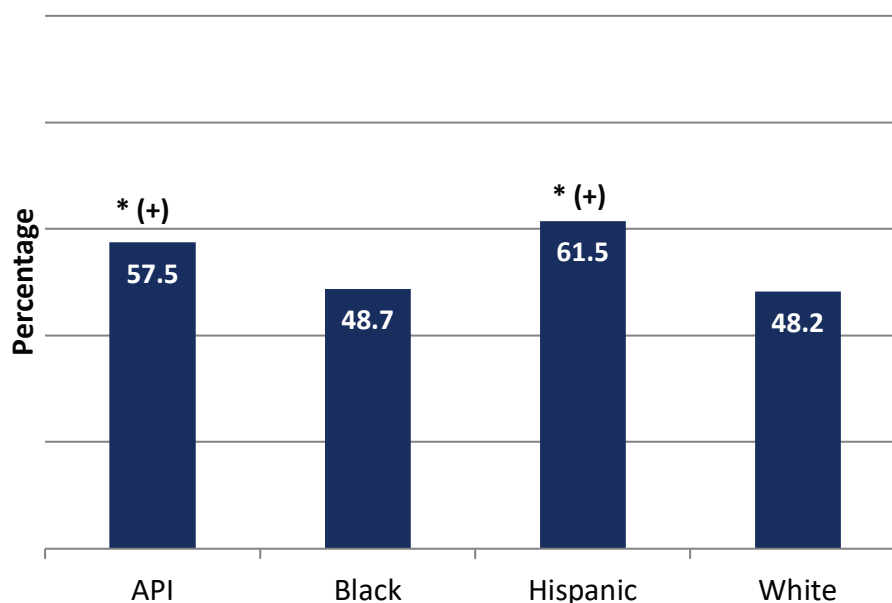
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Osteoporosis Management in Women Who Had a Fracture

Percentage of MA enrollees (women) aged 67 to 85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asian or Pacific Islander and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- Black women who suffered a fracture were about as likely as White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

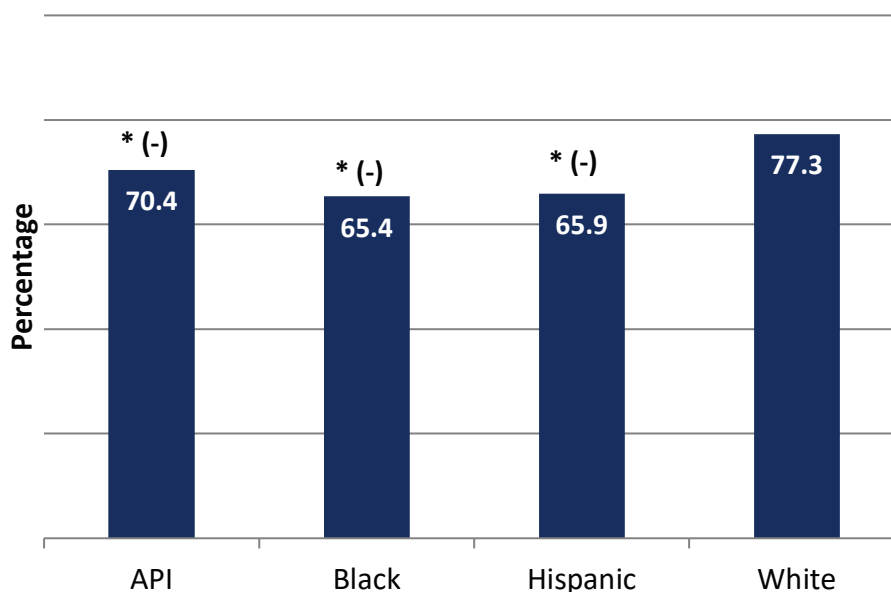
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA enrollees aged 18 years and older who were diagnosed with a new episode of major depression who were newly treated with antidepressant medication who remained on the medication for at least 84 days, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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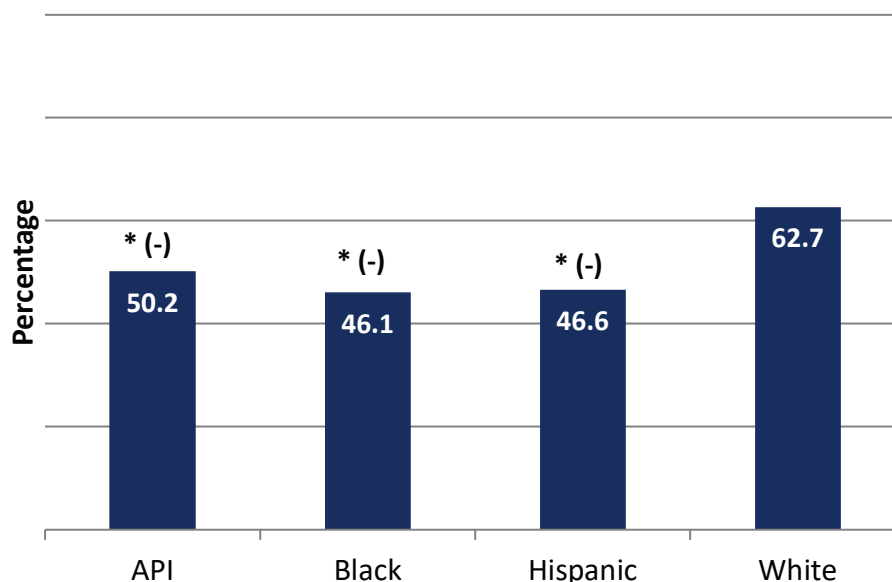
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on antidepressant medication for at least 180 days, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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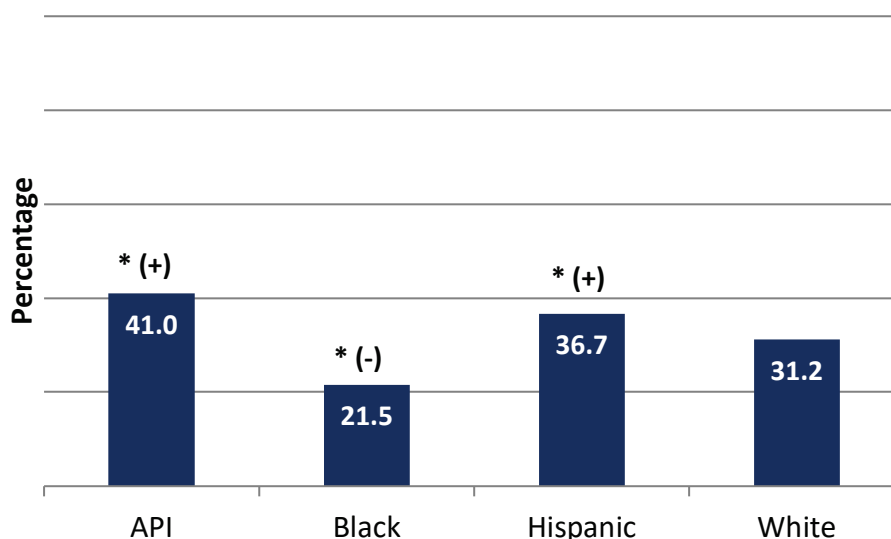
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Follow-up Visit After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within seven days of being discharged. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within seven days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

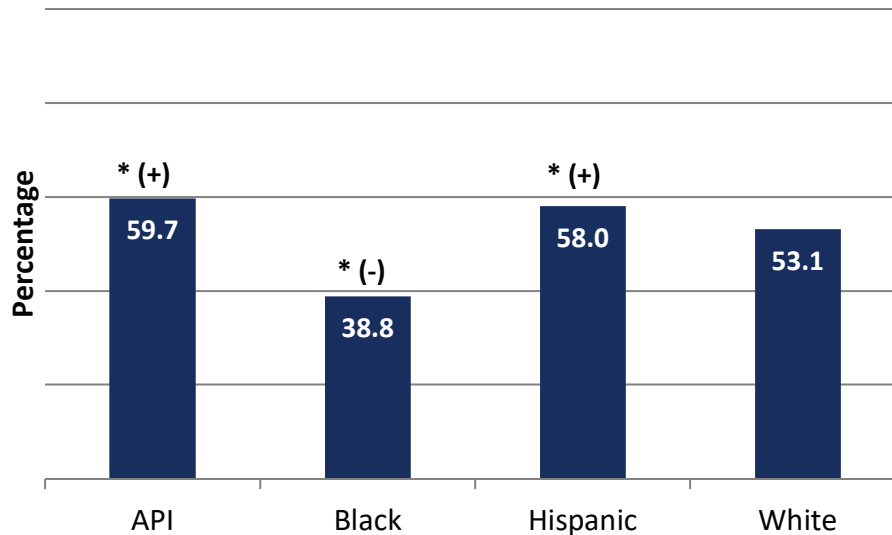
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Follow-up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between these Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

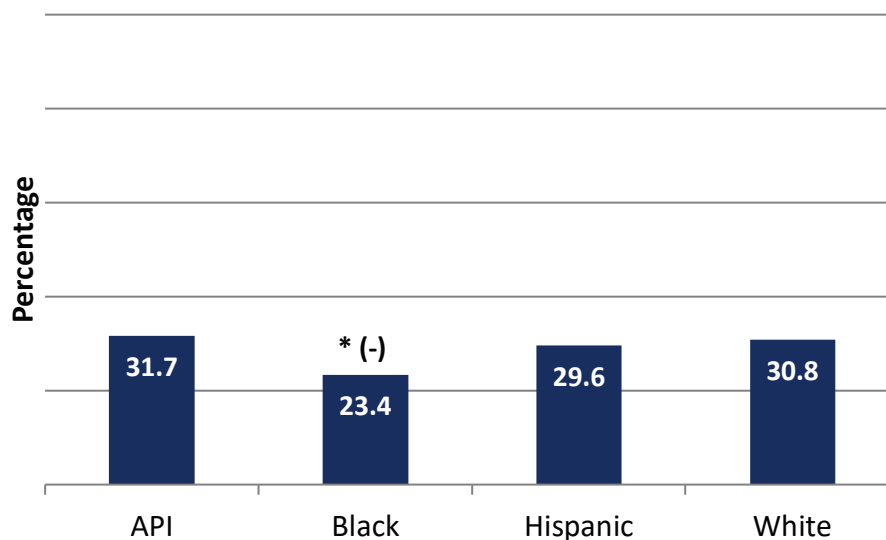
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of the ED visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics who had an ED visit for a mental health disorder were about as likely as Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit.
- Blacks who had an ED visit for a mental health disorder were less likely than Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. The difference between Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

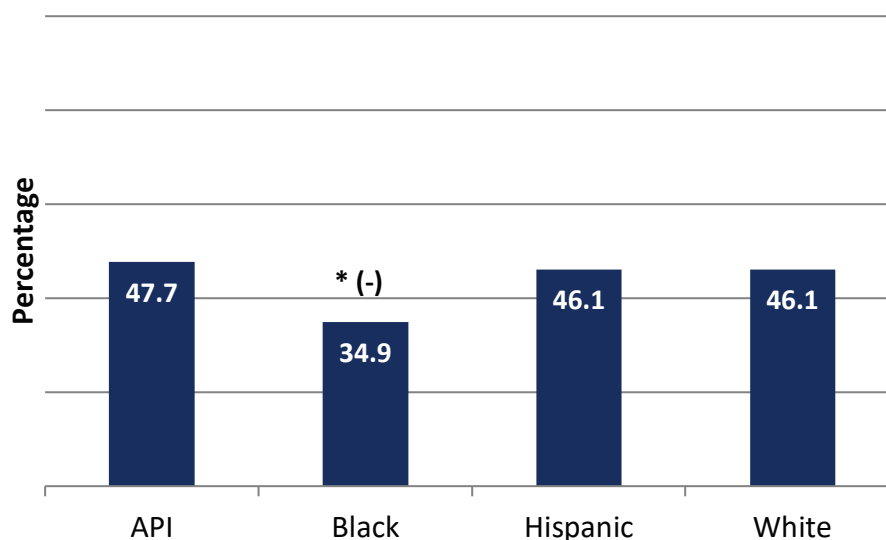
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.



## Follow-up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics who had an ED visit for a mental health disorder were about as likely as Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit.
- Blacks who had an ED visit for a mental health disorder were less likely than Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Blacks and Whites was greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

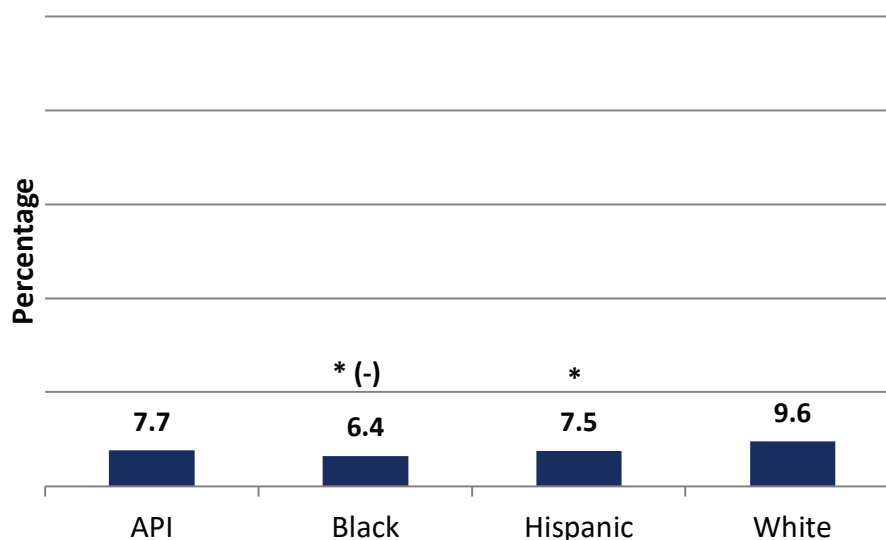
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within seven days of the ED visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who had an ED visit for AOD abuse or dependence were about as likely as Whites who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit.
- Blacks and Hispanics who had an ED visit for AOD abuse or dependence were less likely than Whites who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit. The difference between Blacks and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

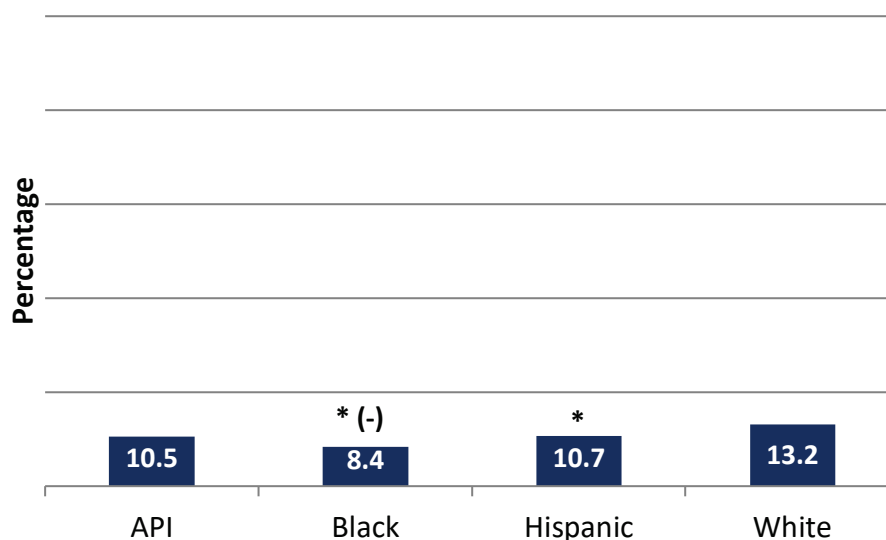
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who had an ED visit for a mental health disorder were about as likely as Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit.
- Blacks and Hispanics who had an ED visit for a mental health disorder were less likely than Whites who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Blacks and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

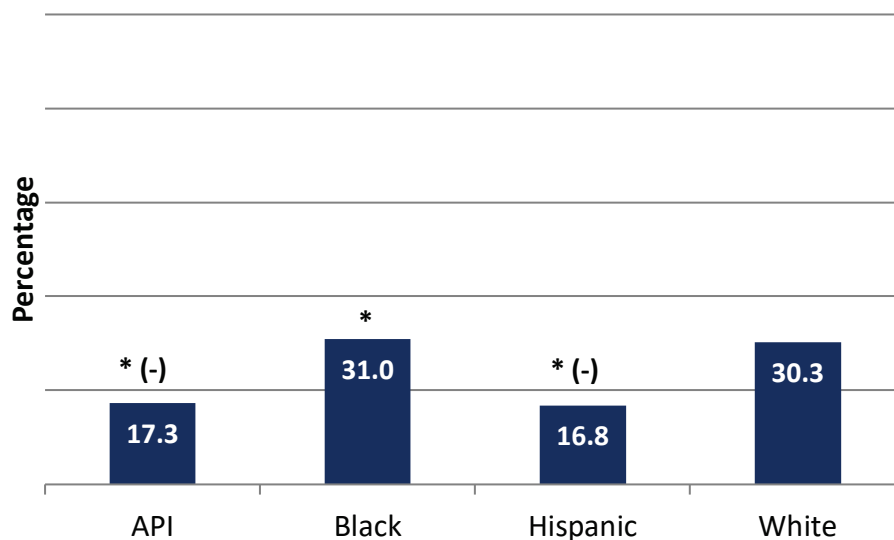
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence were less likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with a new episode of AOD dependence were more likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Blacks and Whites was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

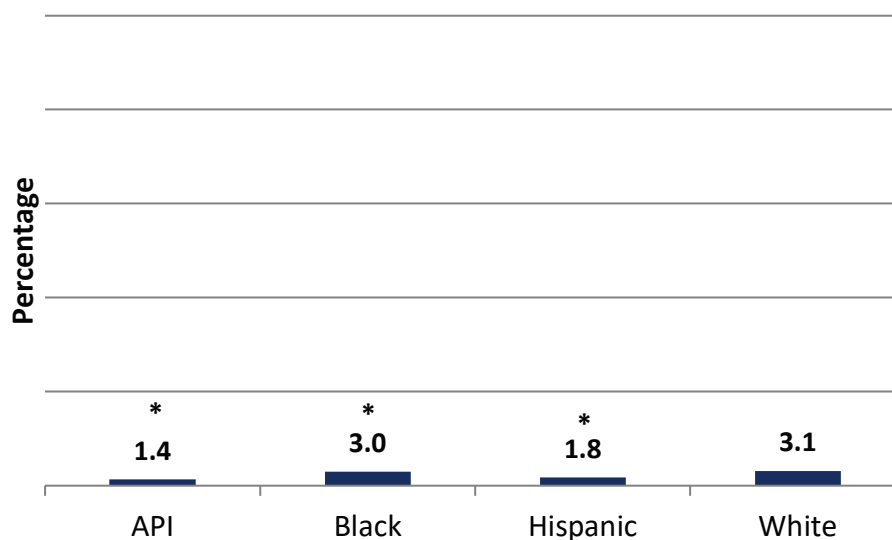
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol and Other Drug Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with a new episode of AOD dependence who initiated treatment were less likely than Whites with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

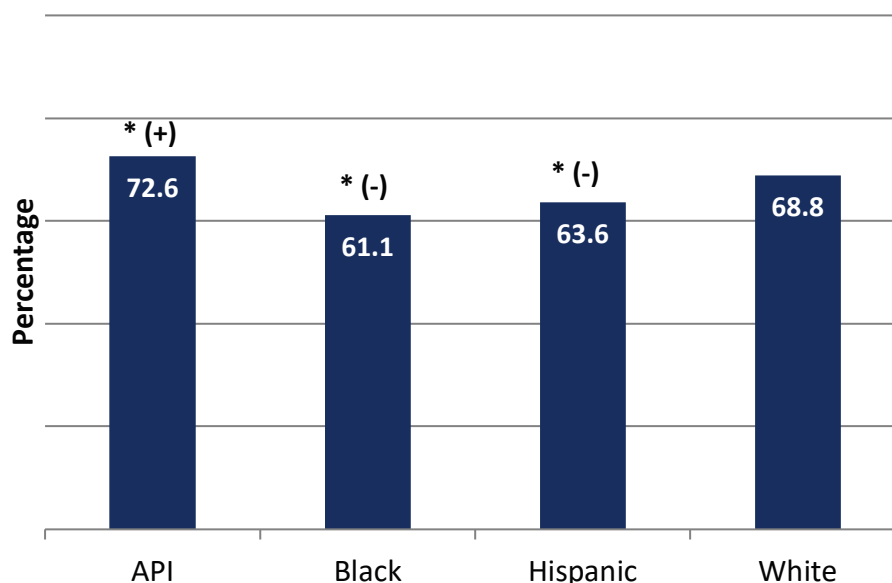
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Clinical Care: Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who were discharged from an inpatient facility were more likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks and Hispanics who were discharged from an inpatient facility were less likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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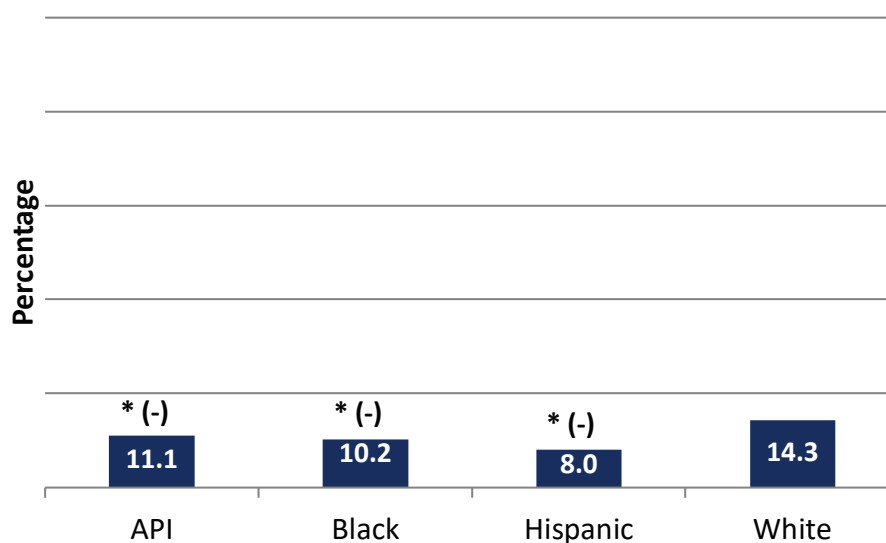
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- The primary or ongoing care providers of Asians or Pacific Islanders, Blacks, and Hispanics who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of Whites who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. The difference between these groups was greater than 3 percentage points.

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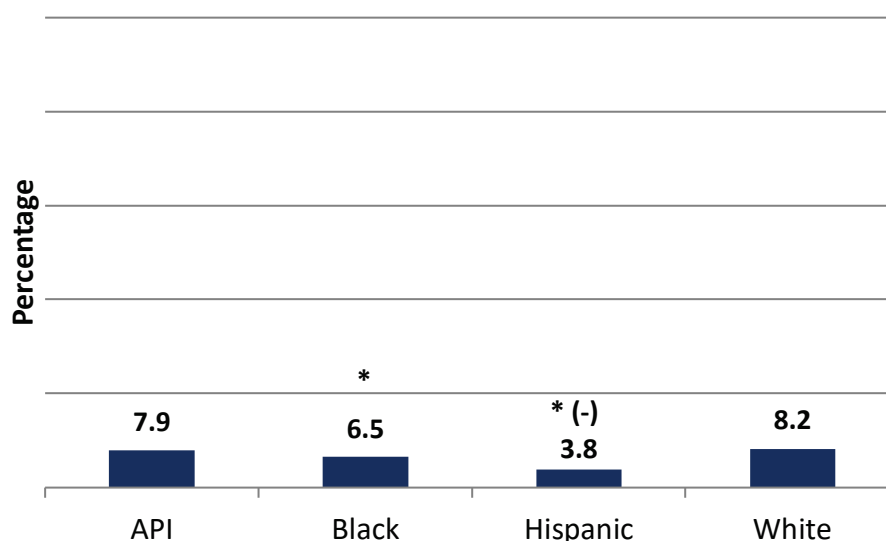
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who were discharged from an inpatient facility were about as likely as Whites who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge.
- Blacks and Hispanics who were discharged from an inpatient facility were less likely than Whites who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between Blacks and Whites was less than 3 percentage points. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

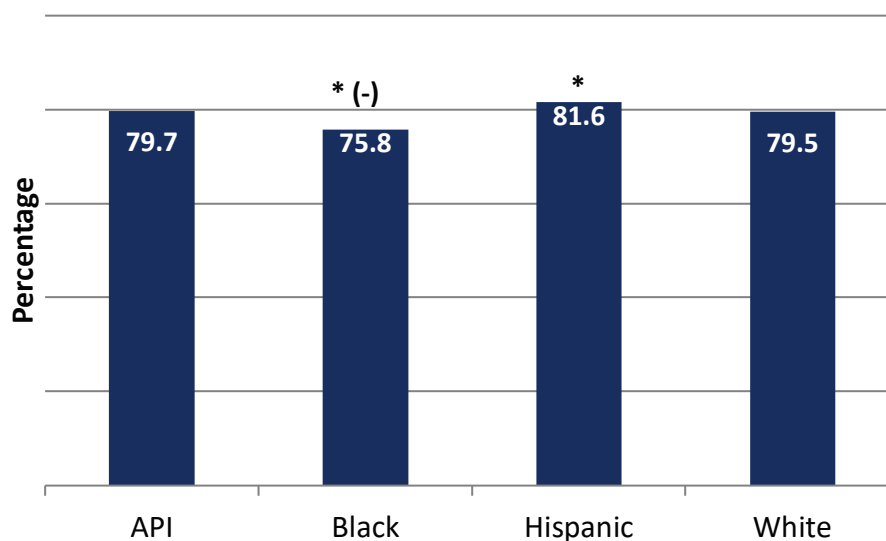
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders who were discharged from an inpatient facility were about as likely as Whites who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge.
- Blacks who were discharged from an inpatient facility were less likely than Whites who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between Blacks and Whites was greater than 3 percentage points.
- Hispanics who were discharged from an inpatient facility were more likely than Whites who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between Blacks and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

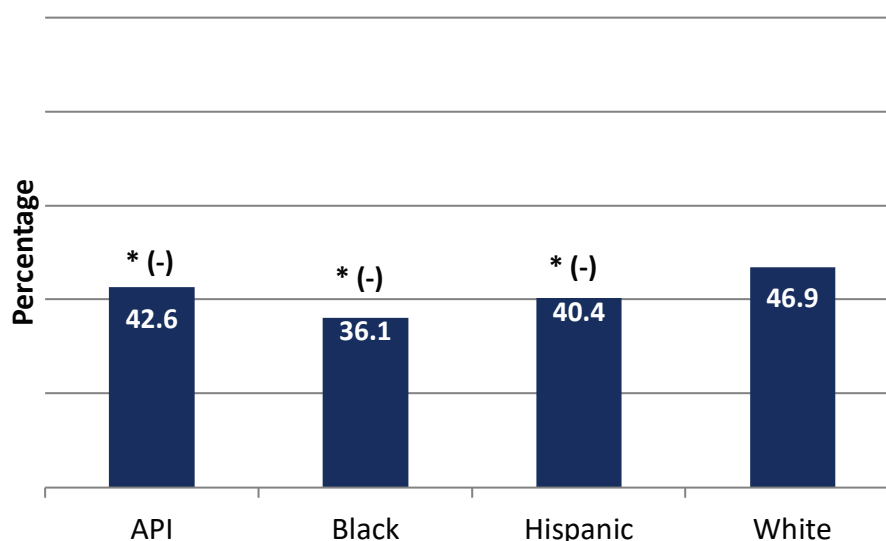
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Transitions of Care—Medication Reconciliation After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom medications were reconciled within 30 days of discharge, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were discharged from an inpatient facility were less likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days of discharge. The difference between each of these groups and Whites was greater than 3 percentage points.

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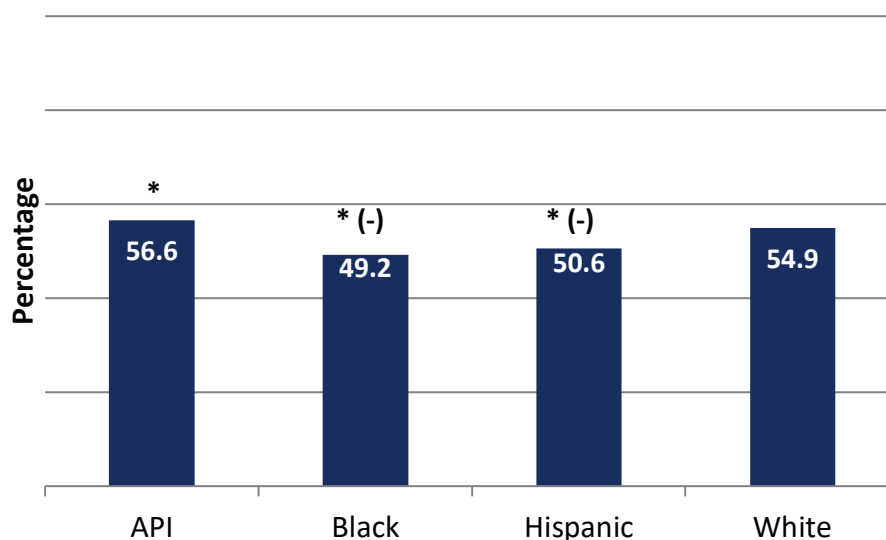
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Follow-up After Emergency Department (ED) Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Asians or Pacific Islanders with multiple high-risk chronic conditions were more likely than Whites with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics with multiple high-risk chronic conditions were less likely than Whites with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between each of these groups and Whites was greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

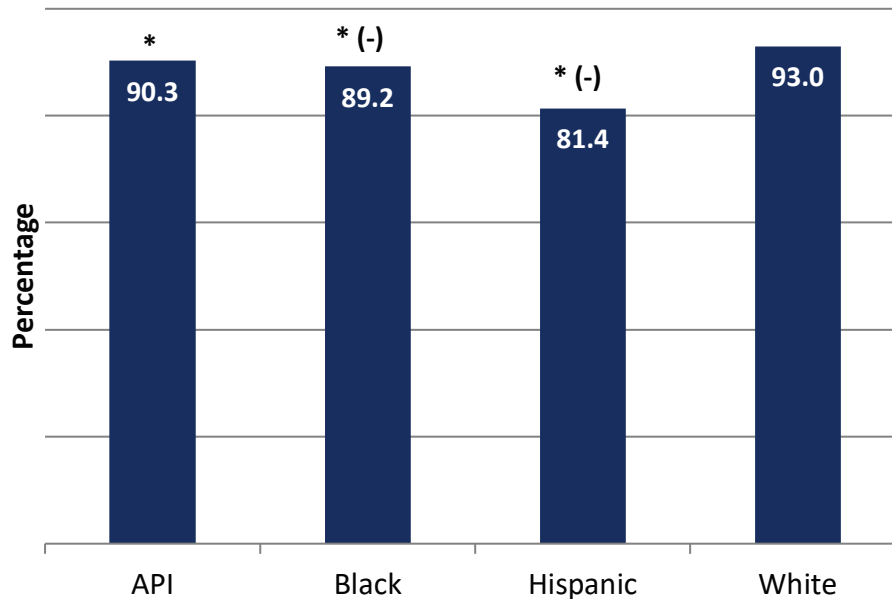
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.

## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly Asians or Pacific Islanders, Blacks, and Hispanics with chronic renal failure than for elderly Whites with chronic renal failure. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points. The difference between Blacks and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

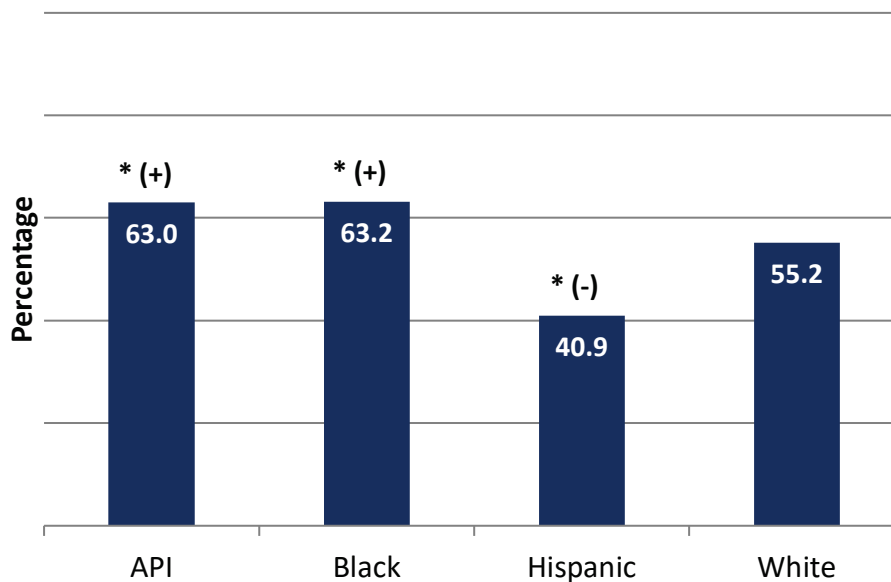
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes cyclooxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly Asians or Pacific Islanders and Blacks with dementia than for elderly Whites with dementia. The difference between each of these groups and Whites was greater than 3 percentage points.
- Use of potentially harmful medication was avoided less often for elderly Hispanics with dementia than for elderly Whites with dementia. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

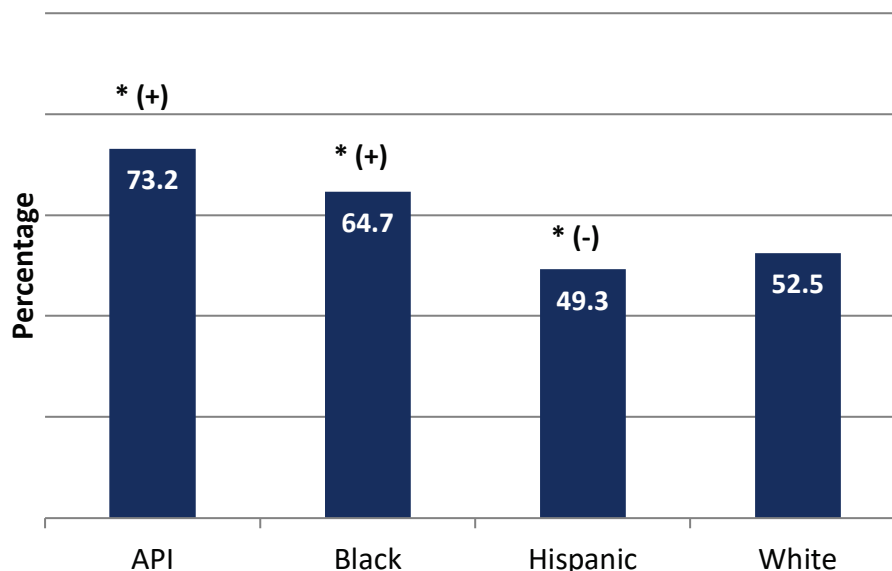
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly Asians or Pacific Islanders and Blacks with a history of falls than for elderly Whites with a history of falls. The difference between each of these groups and Whites was greater than 3 percentage points.
- Use of potentially harmful medication was avoided less often for elderly Hispanics with a history of falls than for elderly Whites with a history of falls. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

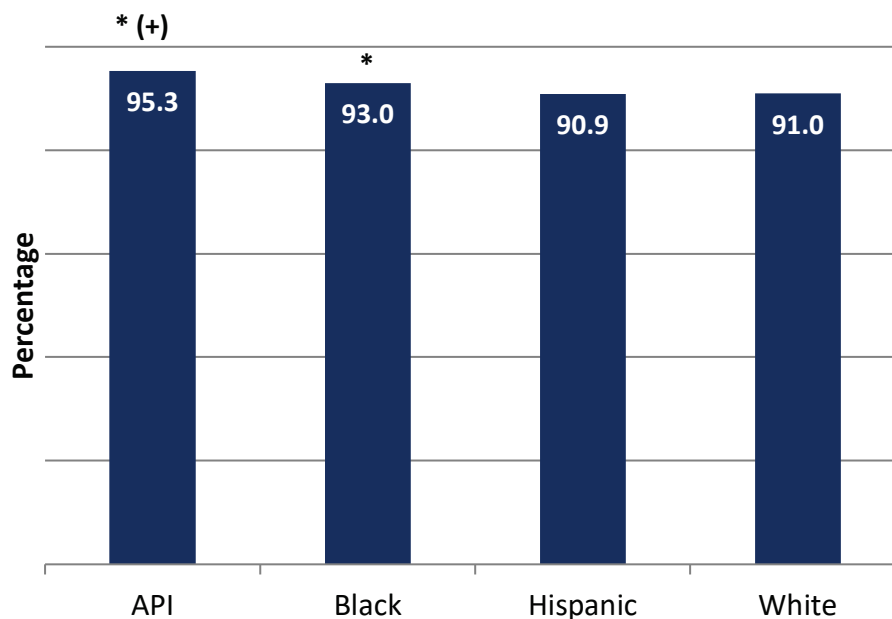
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of high-risk medication was avoided more often for elderly Asians or Pacific Islanders and Blacks than for elderly Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Blacks and Whites was less than 3 percentage points.
- Use of high-risk medication was avoided about as often for elderly Hispanics as for elderly Whites.

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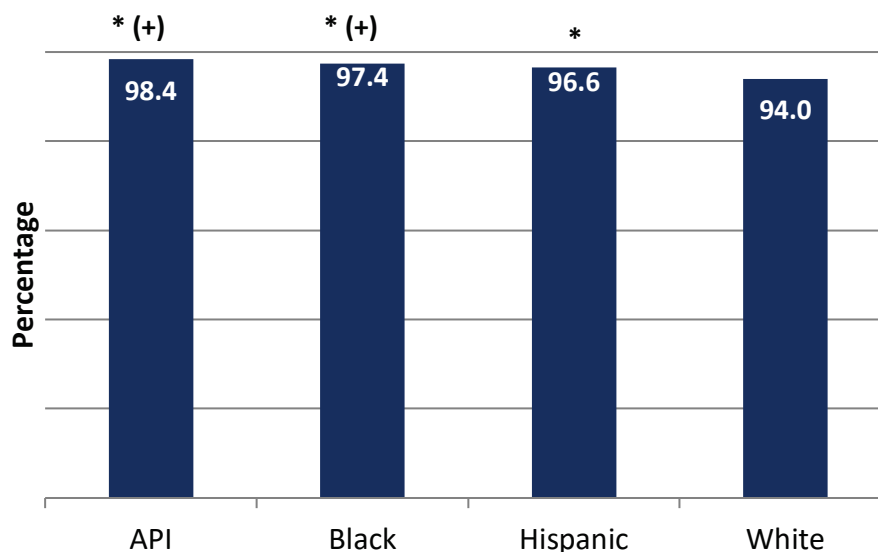
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Use of opioids at a high dosage for more than 14 days was avoided more often for Asians or Pacific Islanders, Blacks, and Hispanics than for Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points, as was the difference between Blacks and Whites. The difference between Hispanics and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

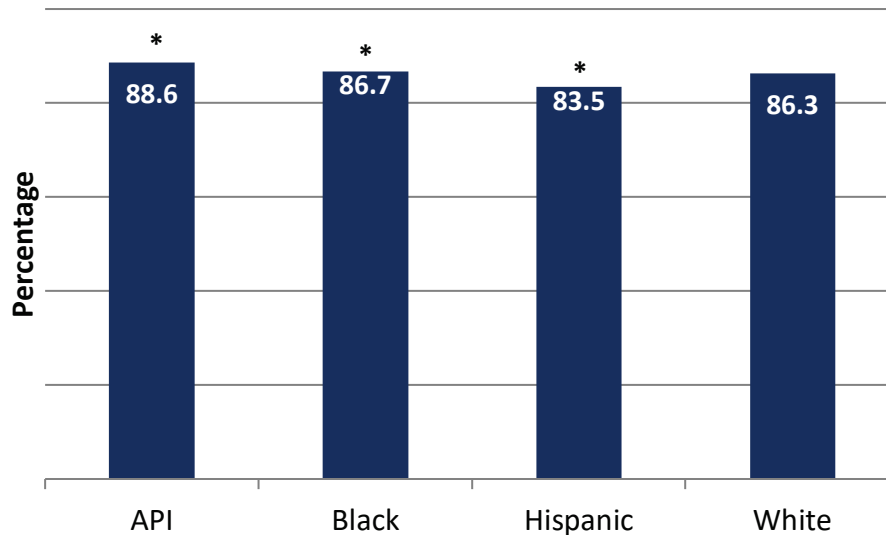
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Average morphine equivalent dose is greater than 120 mg.



## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple prescribers was avoided more often for Asians or Pacific Islanders and Blacks than for Whites. The difference between each of these groups and Whites was less than 3 percentage points.
- Use of opioids from multiple prescribers was avoided less often for Hispanics than for Whites. The difference between Hispanics and Whites was less than 3 percentage points.

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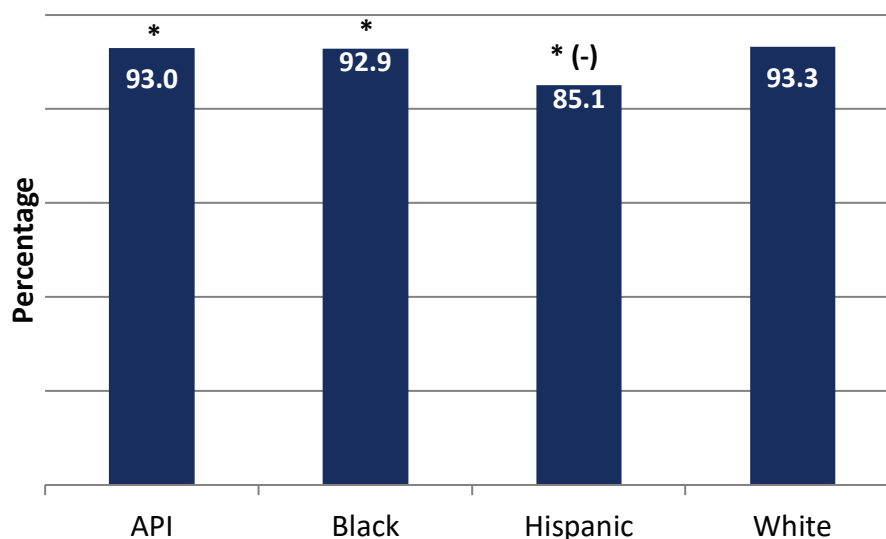
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple pharmacies was avoided less often for Asians or Pacific Islanders, Blacks, and Hispanics than for Whites. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points, as was the difference between Blacks and Whites. The difference between Hispanics and Whites was greater than 3 percentage points.

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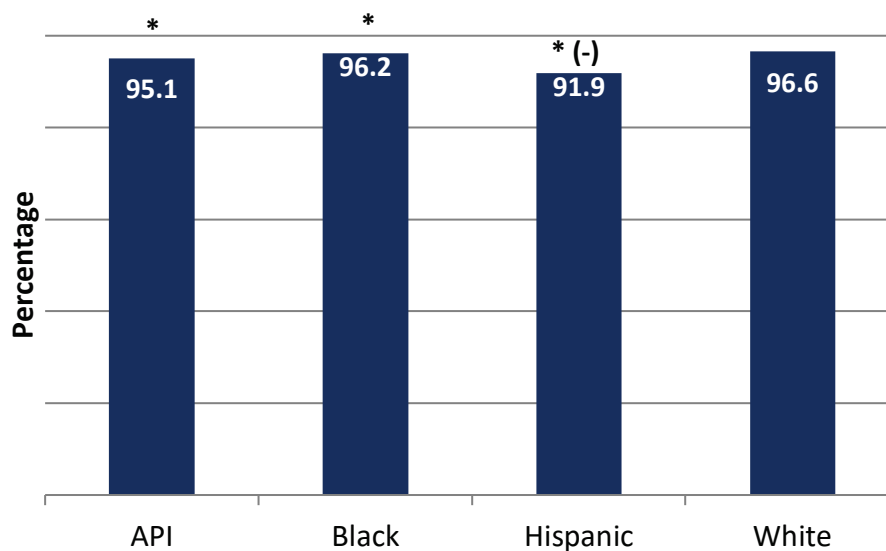
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Avoiding Use of Opioids from Multiple Prescribers and Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers and four or more pharmacies in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple prescribers and pharmacies was avoided less often for Asians or Pacific Islanders, Blacks, and Hispanics than for Whites. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points, as was the difference between Blacks and Whites. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

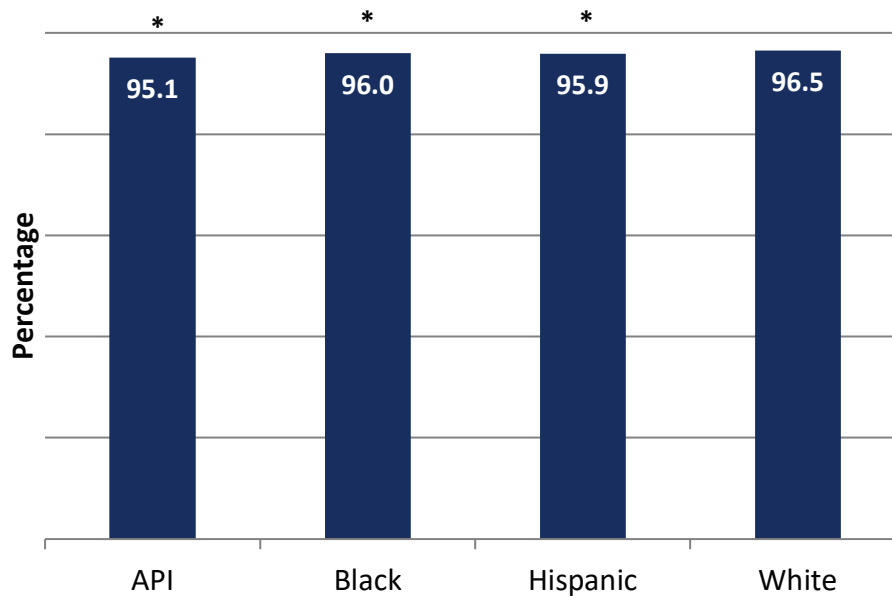
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by race and ethnicity, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

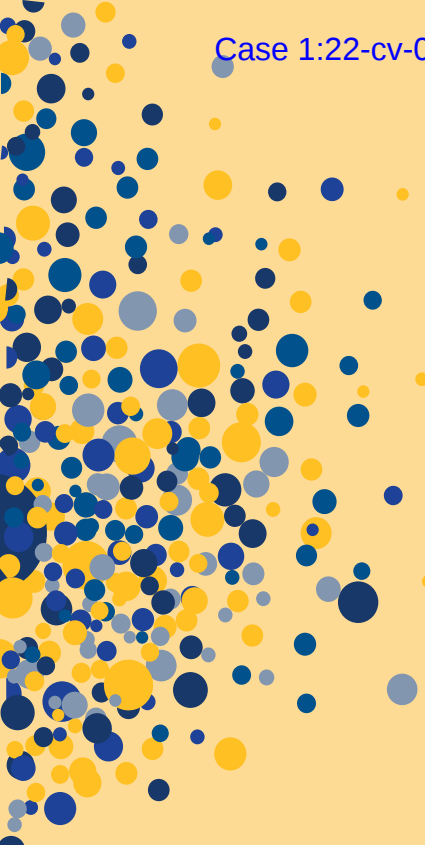
- Asians or Pacific Islanders, Blacks, and Hispanics were less likely than Whites to have had an ambulatory or preventive care visit. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

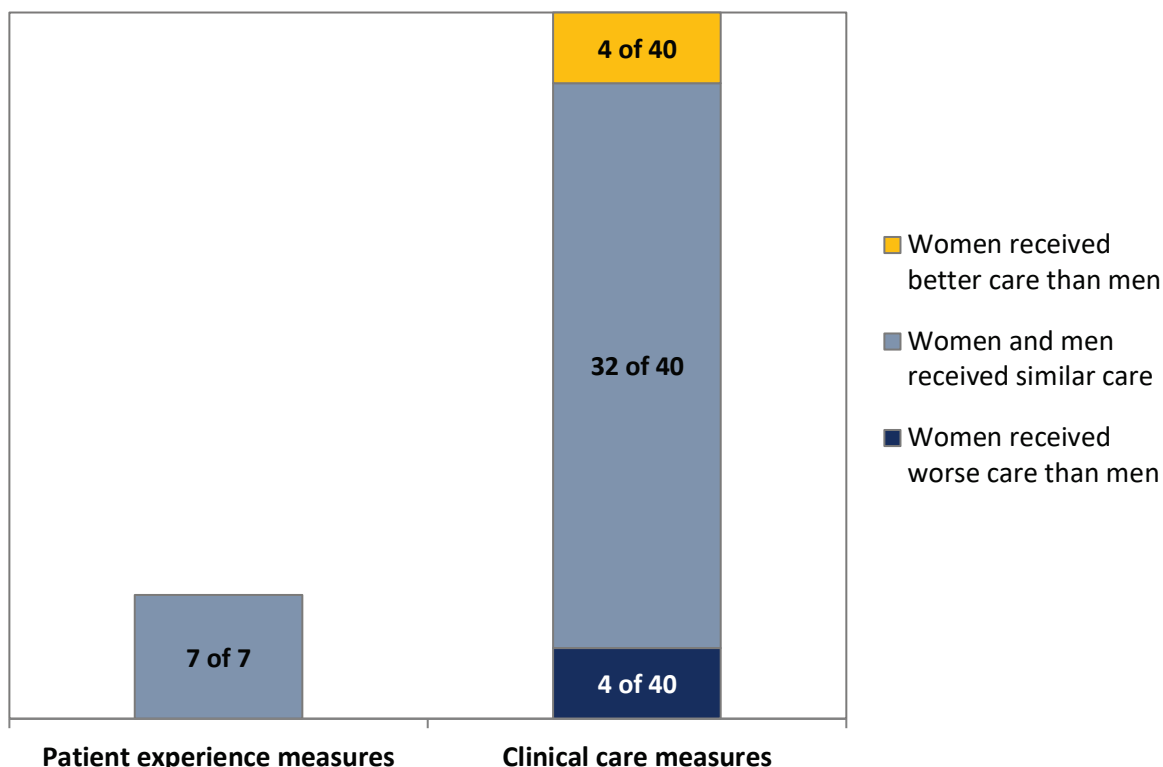


## **Section II:** Gender Disparities in Health Care in Medicare Advantage



## Disparities in Care: All Patient Experience and Clinical Care Measures

Number of patient experience measures (out of seven) and clinical care measures (out of 40) for which women received care that was worse than, similar to, or better than the care received by men in 2018



**SOURCES:** The bar on the left (patient experience measures) summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

The relative difference between men and women is used to assess disparities.

- **Better** = Women received better care than men. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor women.
- **Similar** = Women and men received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Women received worse care than men. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor men.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**Women receive worse clinical care than men**

- Initiation of alcohol and other drug dependence treatment
- Avoiding potentially harmful drug-disease interactions in patients with dementia
- Avoiding potentially harmful drug-disease interactions in patients with a history of falls
- Avoiding use of high-risk medications in the elderly

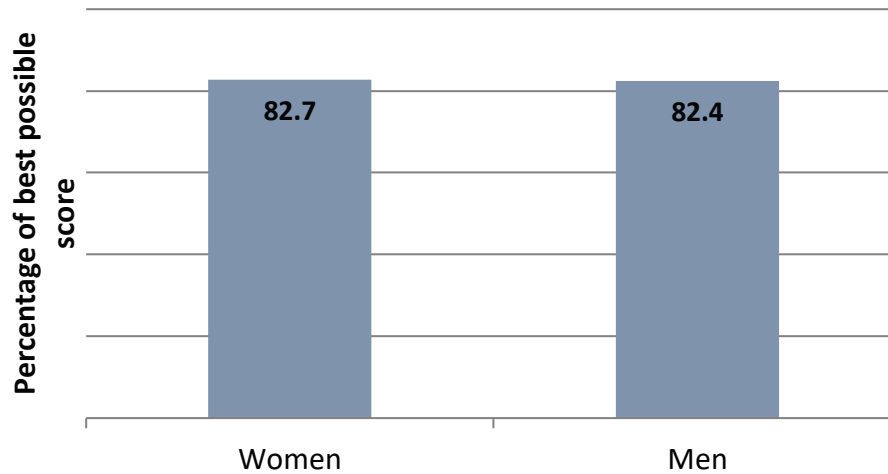
**Women receive better clinical care than men**

- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Follow-up visit after hospital stay for mental illness (within seven days of discharge)
- Follow-up visit after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)

## Patient Experience

### Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

### Disparities

- Women reported experiences getting needed care that were similar to the experiences that men reported.

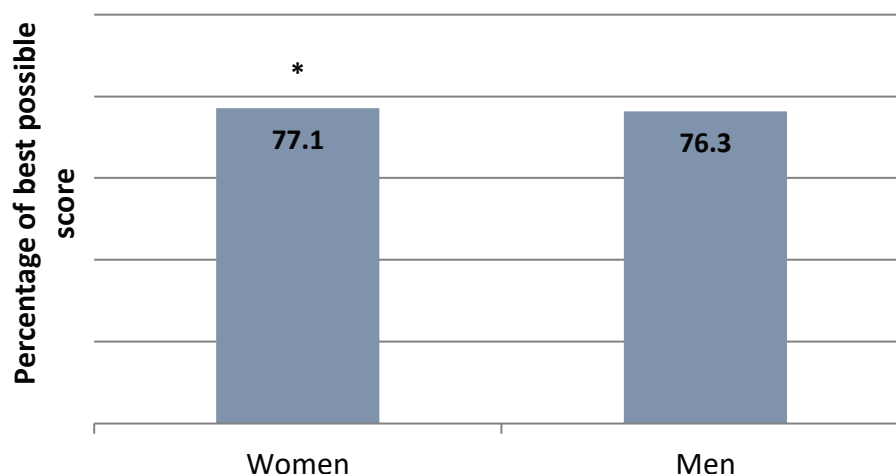
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<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.



## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

### Disparities

- Women reported better<sup>‡</sup> experiences with getting appointments and care quickly than men reported. The difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

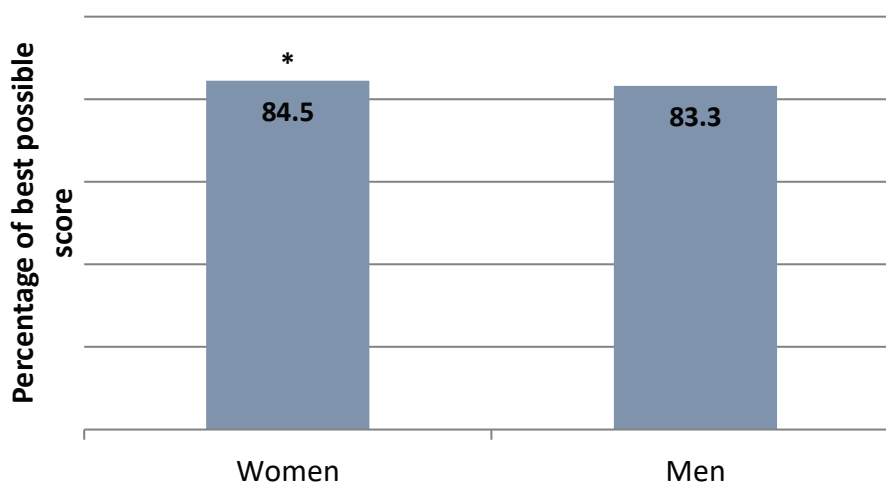
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

<sup>‡</sup> Unlike on pp. 63–64, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

### Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by gender, 2018



SOURCE: Data from the Medicare CAHPS survey, 2018.

#### Disparities

- Women reported better experiences with customer service than men reported. The difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

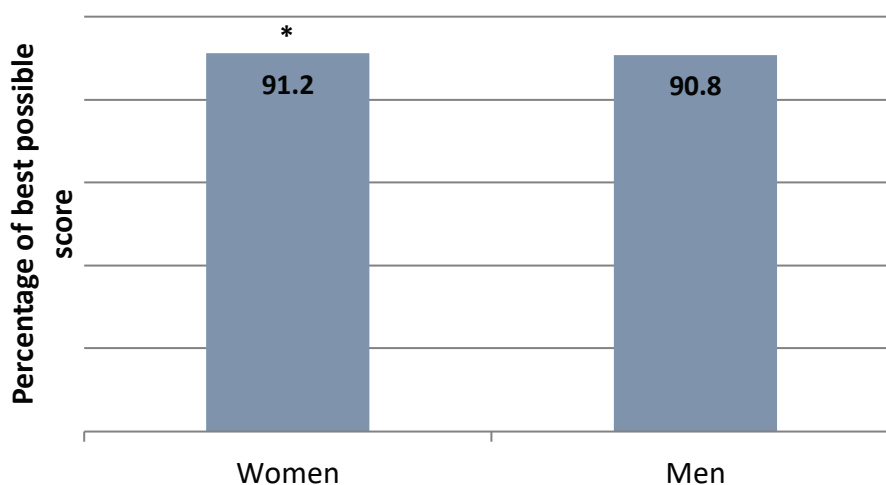
(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last six months health plan customer service staff provided the information or the help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

### Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by gender, 2018



SOURCE: Data from the Medicare CAHPS survey, 2018.

#### Disparities

- Women reported better experiences with doctor communication than men reported. The difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

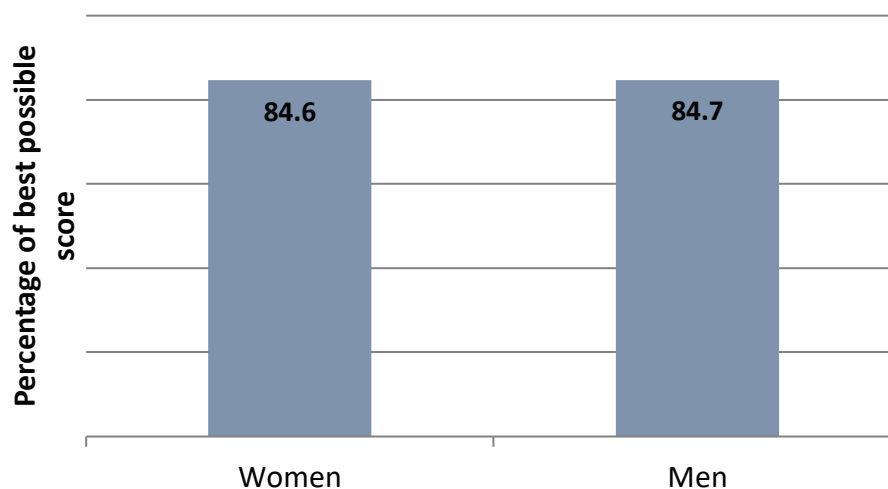
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

### Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care is coordinated,<sup>†</sup> by gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

#### Disparities

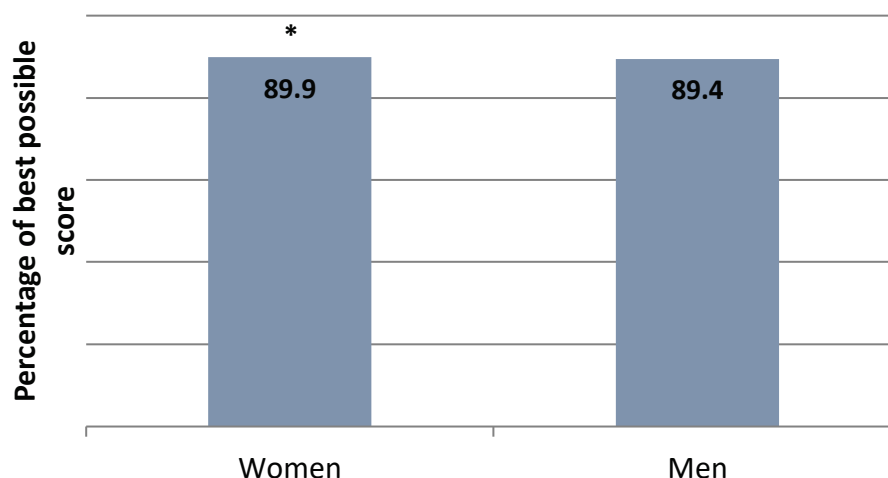
- Women reported experiences with care coordination experiences that were similar to the experiences reported by men.

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<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

### Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

#### Disparities

- Women reported better experiences getting needed prescription drugs than men reported. The difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

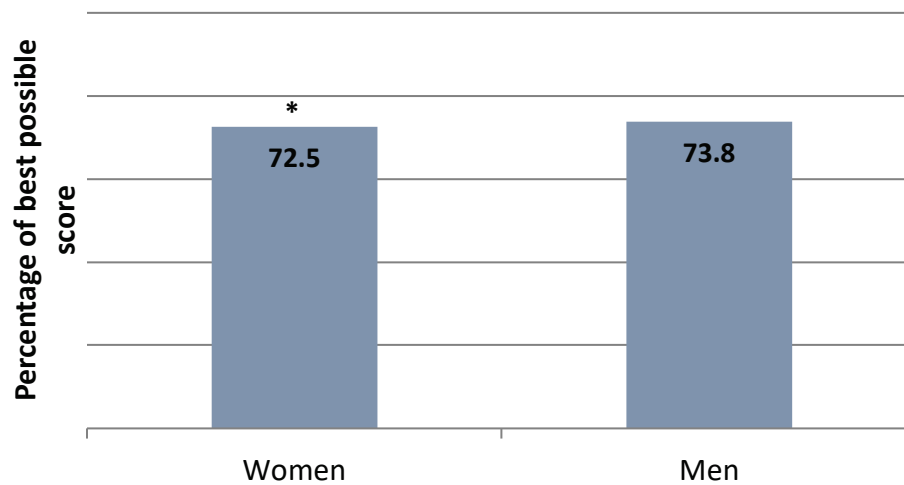
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

### Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

#### Disparities

- Women were less likely than men to have received the flu vaccine. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

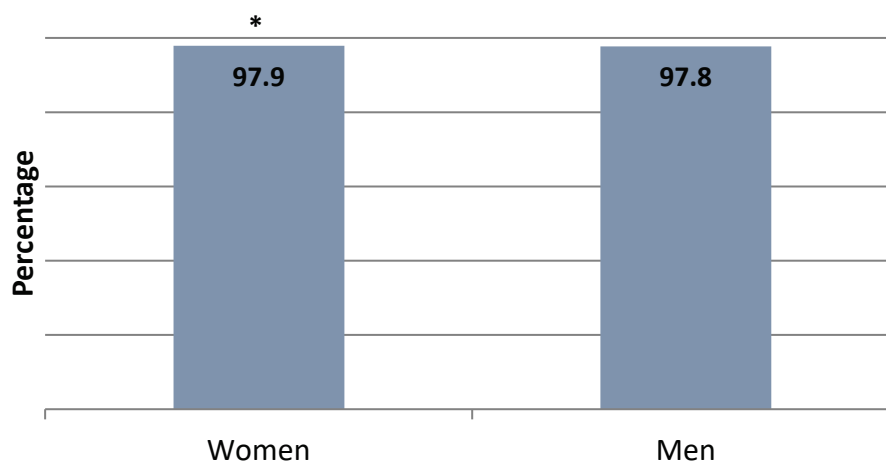
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Prevention and Screening

### Adult BMI Assessment

Percentage of MA enrollees aged 18 to 74 years who had an outpatient visit whose body mass index (BMI) was documented in the past two years, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women were more likely than men to have had their BMIs documented. The difference between women and men was less than 3 percentage points.

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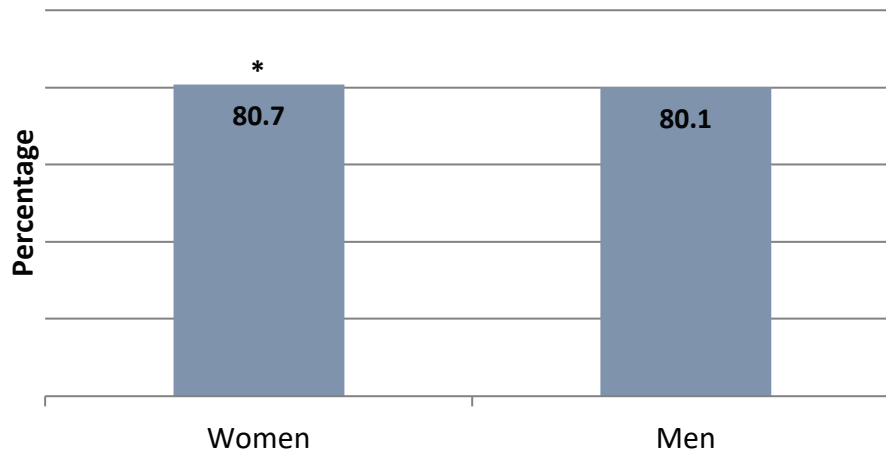
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women were more likely than men to have been appropriately screened for colorectal cancer. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

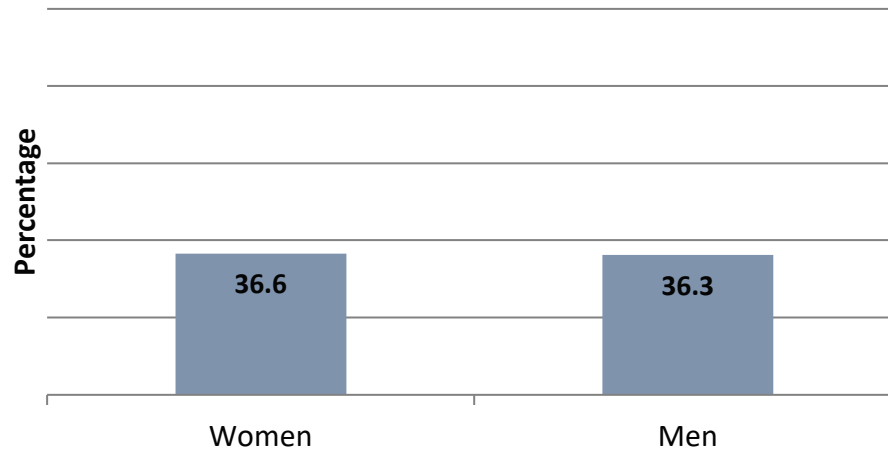
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



## **Clinical Care: Respiratory Conditions**

### **Testing to Confirm COPD**

Percentage of MA enrollees aged 40 years and older with a new diagnosis of chronic obstructive pulmonary disease (COPD) or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by gender, 2018



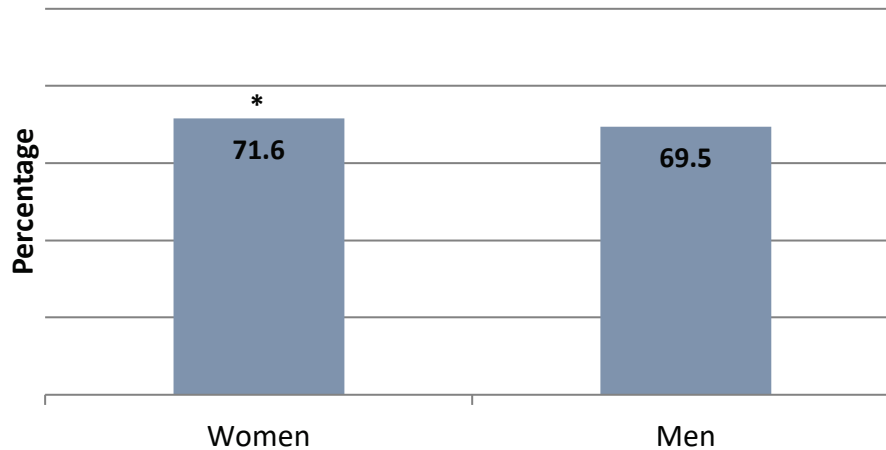
**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### **Disparities**

- Women with a new diagnosis of COPD or newly active COPD were about as likely as men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.

## Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between women and men was less than 3 percentage points.

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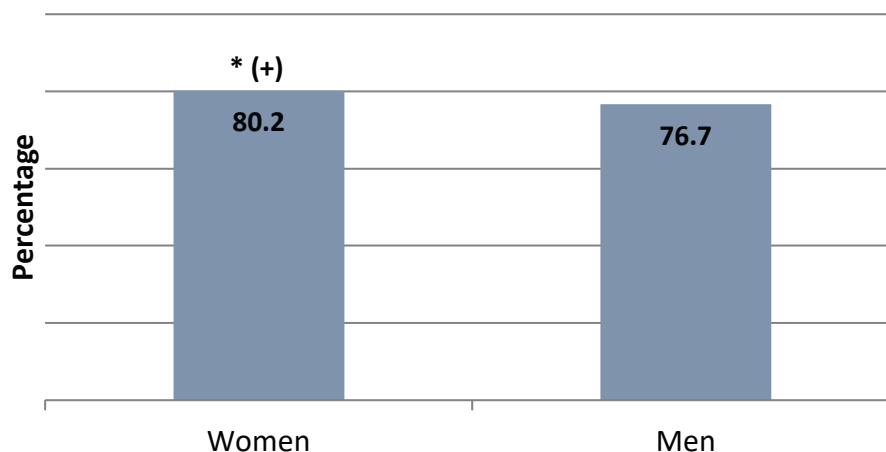
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

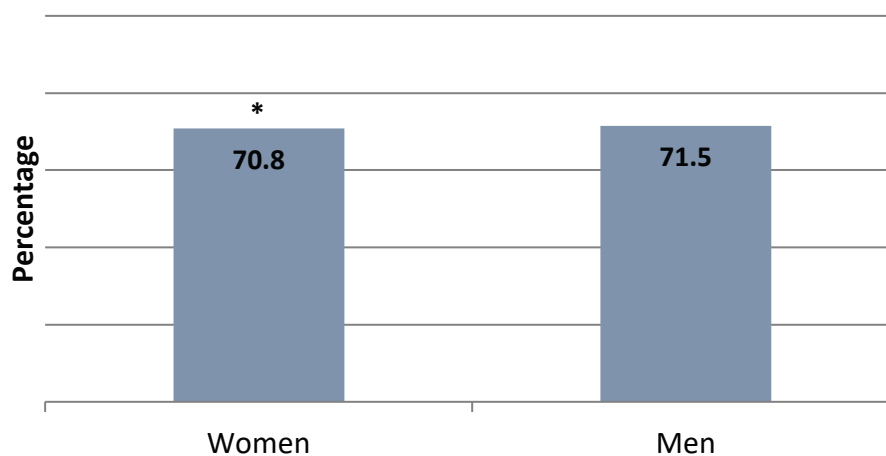
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA enrollees aged 18 to 85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who had a diagnosis of hypertension were less likely than men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

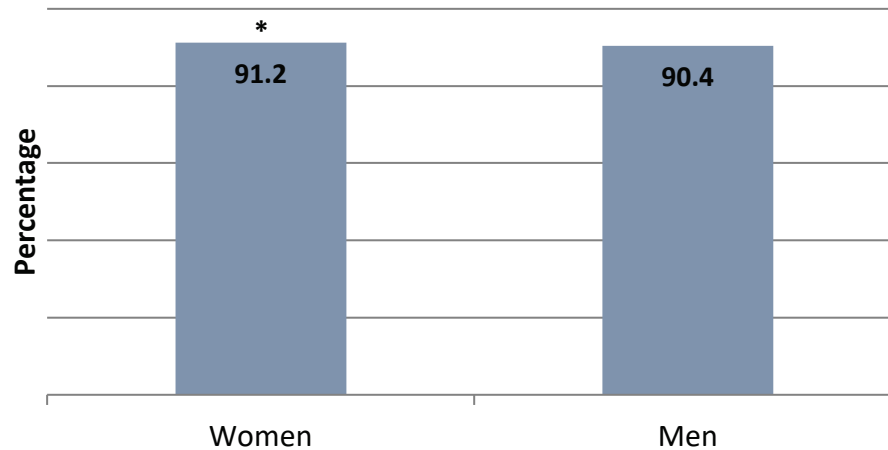
(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.

### Continuous Beta-Blocker Treatment After a Heart Attack

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) who received persistent beta-blocker treatment for six months after discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were hospitalized for a heart attack were more likely than men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

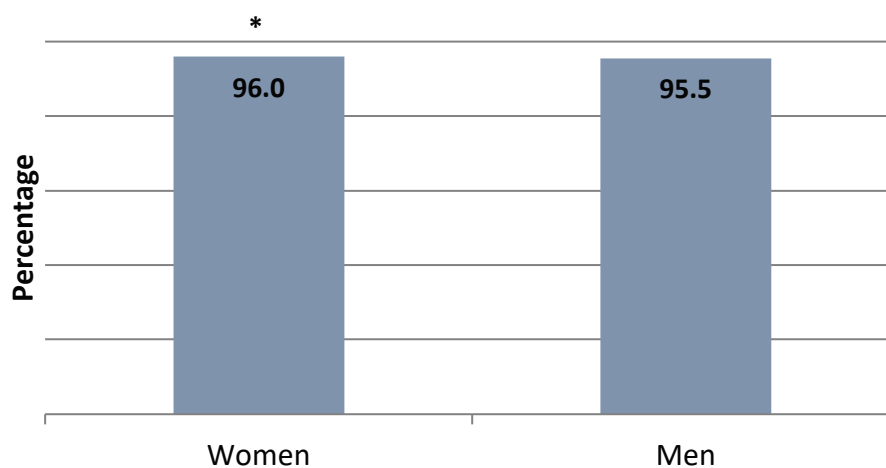
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by gender, 2018



**NOTE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have had their blood sugar tested at least once in the past year. The difference between women and men was less than 3 percentage points.

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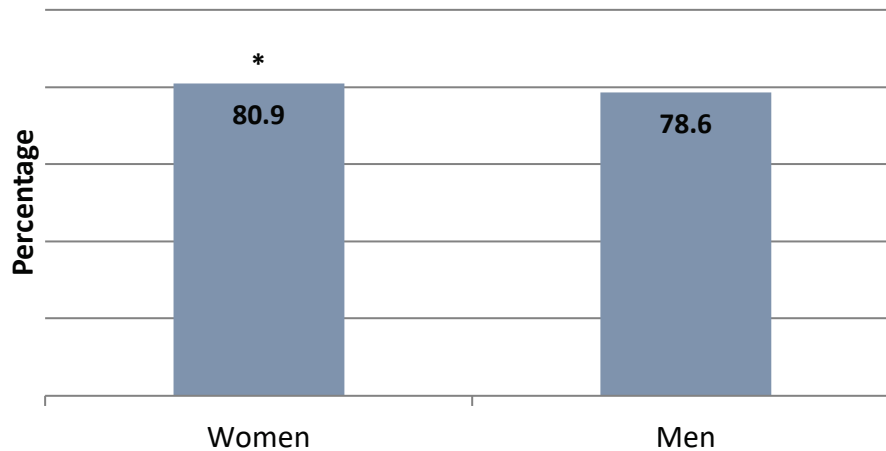
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Diabetes Care—Eye Exam

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have had an eye exam in the past year. The difference between women and men was less than 3 percentage points.

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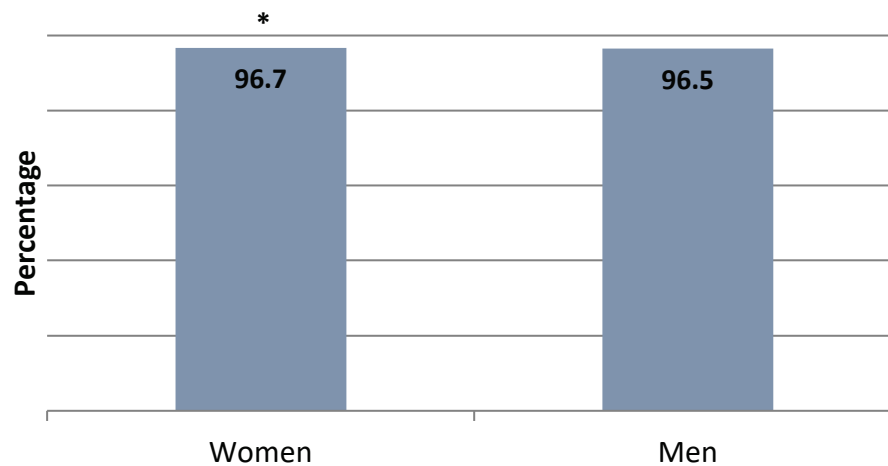
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Diabetes Care—Kidney Disease Monitoring

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have had medical attention for nephropathy in the past year. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

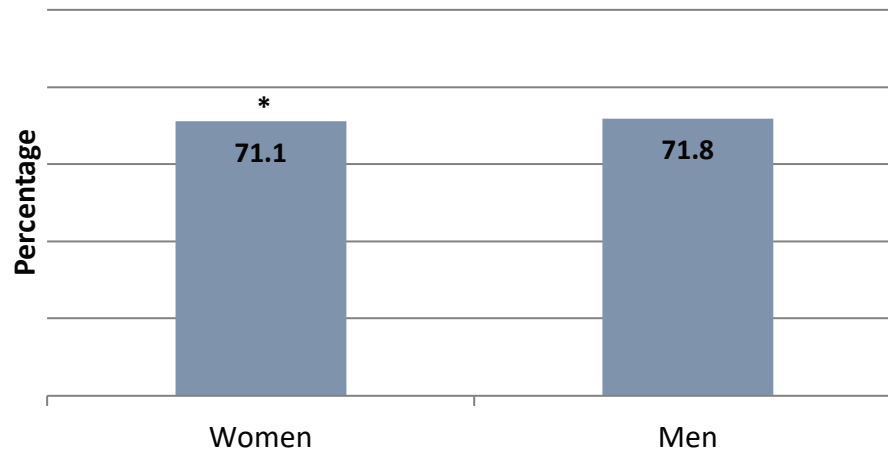
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



### Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by gender, 2018



**NOTE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were less likely than men with diabetes to have their blood pressure under control. The difference between women and men was less than 3 percentage points.

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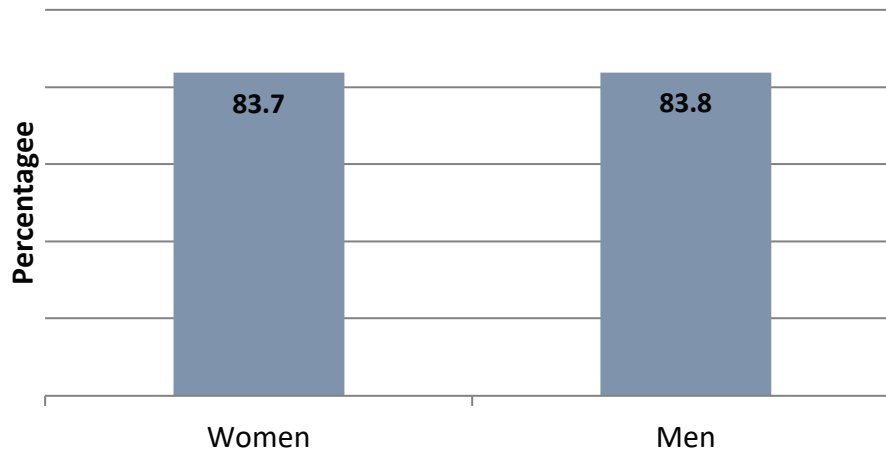
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by gender, 2018



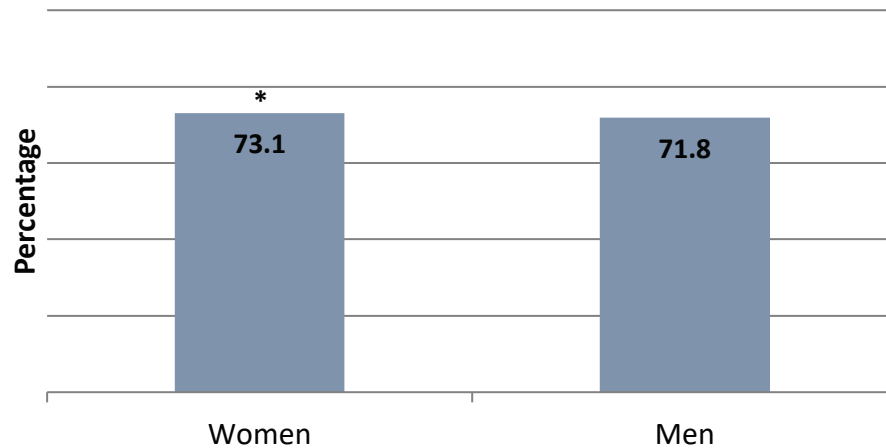
**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were about as likely as men with diabetes to have their blood sugar levels under control.

### Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by gender, 2018



**NOTE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have received statin therapy. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

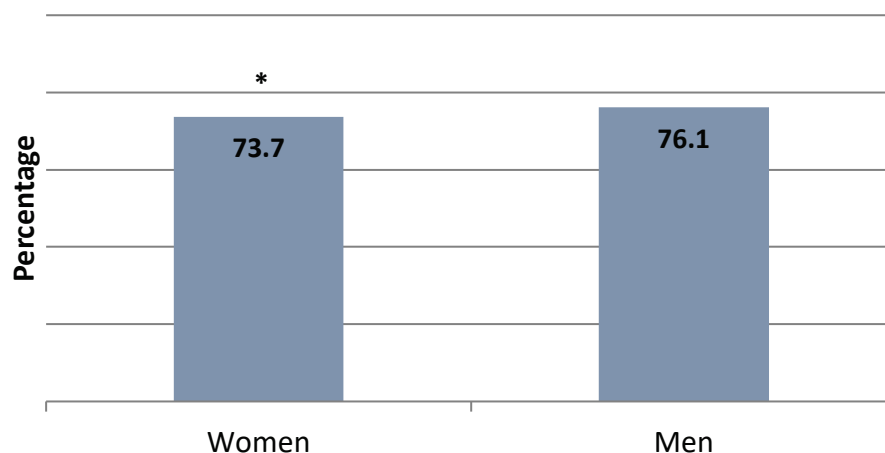
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

### Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women with diabetes were less likely than men with diabetes to have had proper statin medication adherence. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

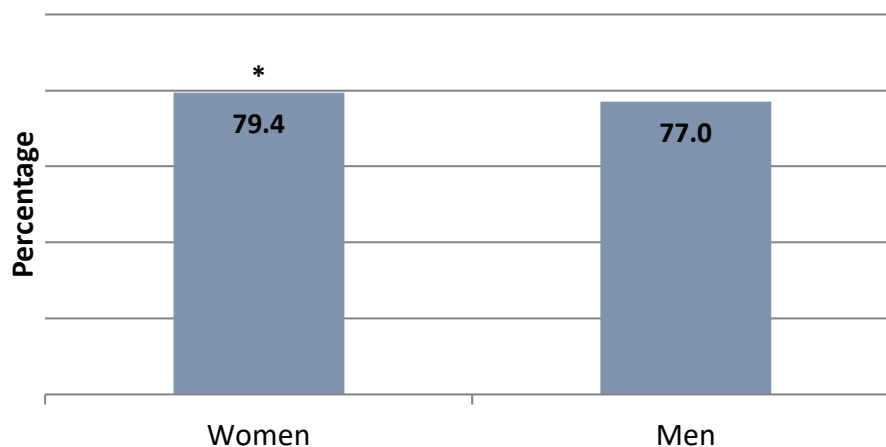
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

## Clinical Care: Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who were diagnosed with rheumatoid arthritis were more likely than men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

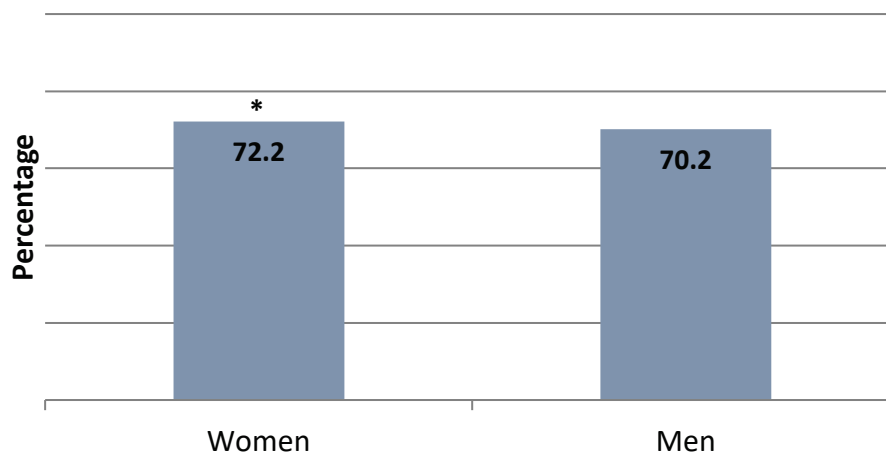
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA enrollees aged 18 years and older who were diagnosed with a new episode of major depression who were newly treated with antidepressant medication who remained on the medication for at least 84 days, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between women and men was less than 3 percentage points.

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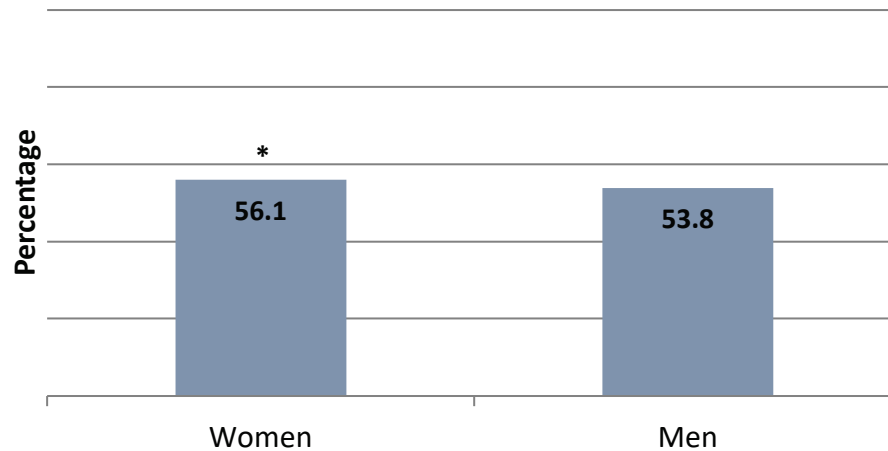
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on antidepressant medication for at least 180 days, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have been treated with and to have remained on antidepressant medication for at least 180 days. The difference between women and men was less than 3 percentage points.

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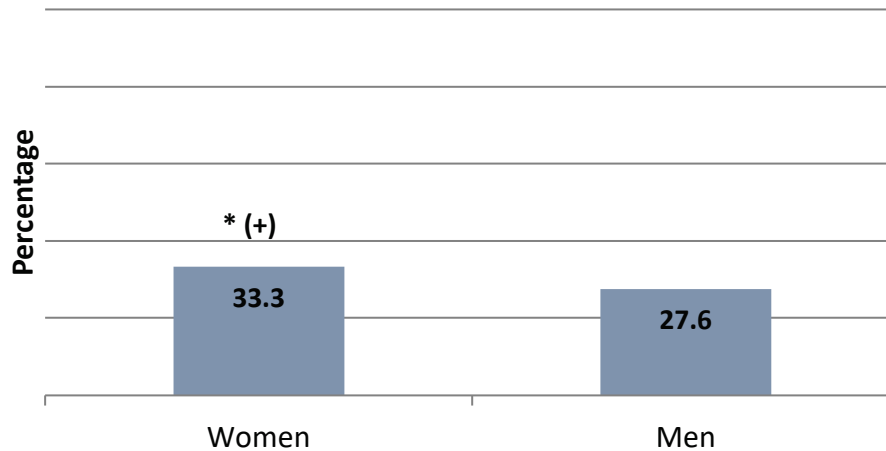
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Follow-up After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

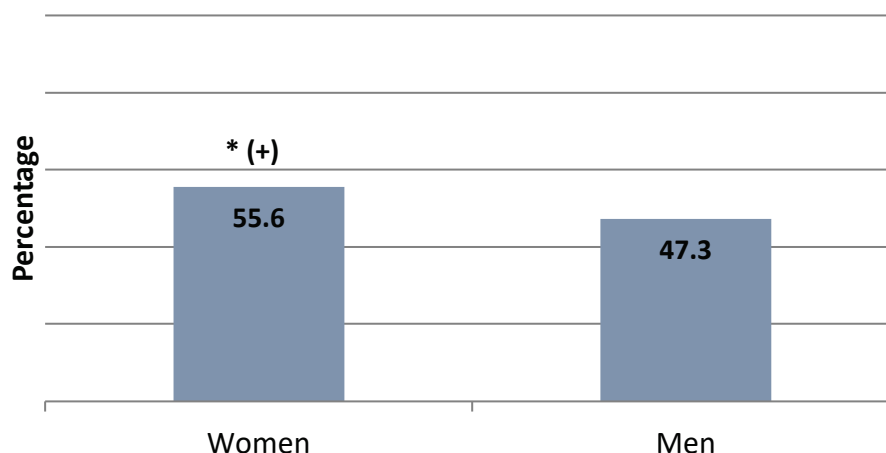
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.



### Follow-up After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

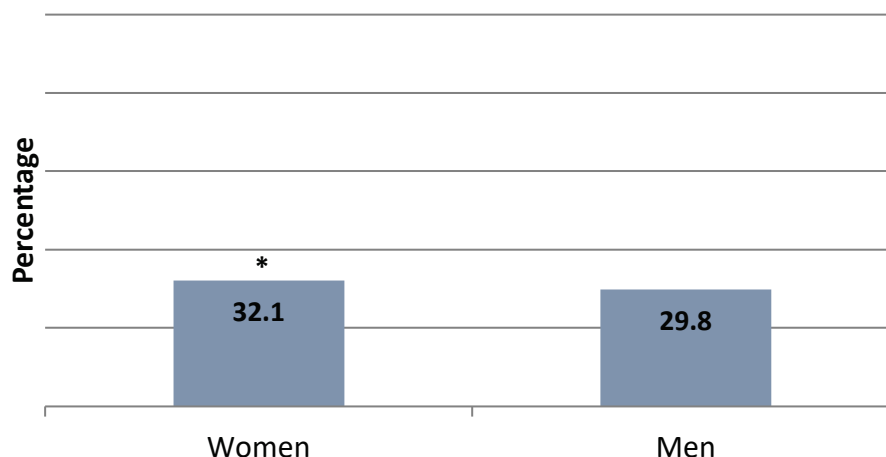
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of the ED visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who had an ED visit for a mental health disorder were more likely than men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

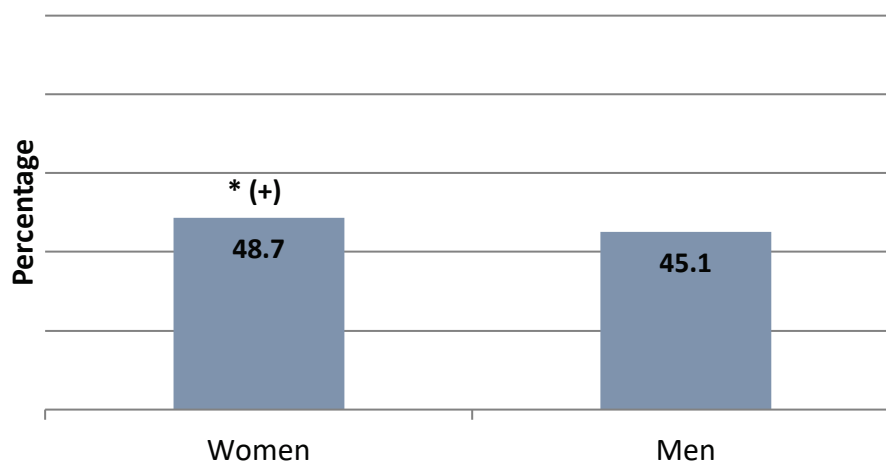
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<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who had an ED visit for a mental health disorder were more likely than men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

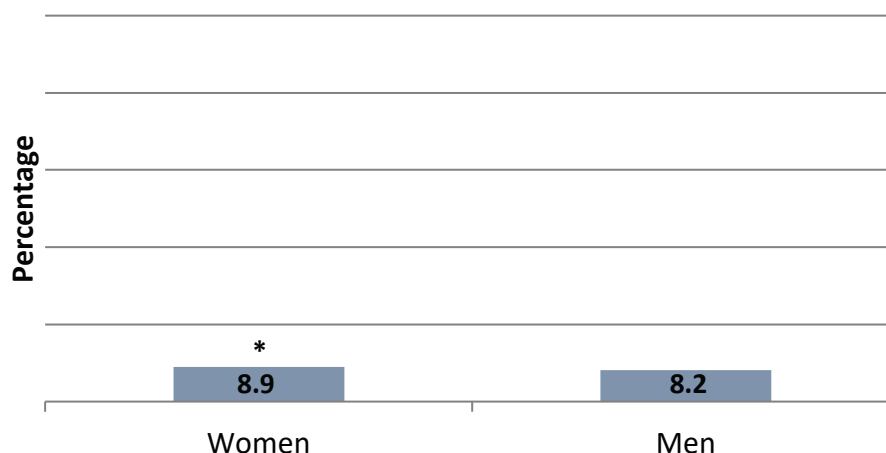
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within seven days of the ED visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who had an ED visit for AOD abuse or dependence were more likely than men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of being discharged. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

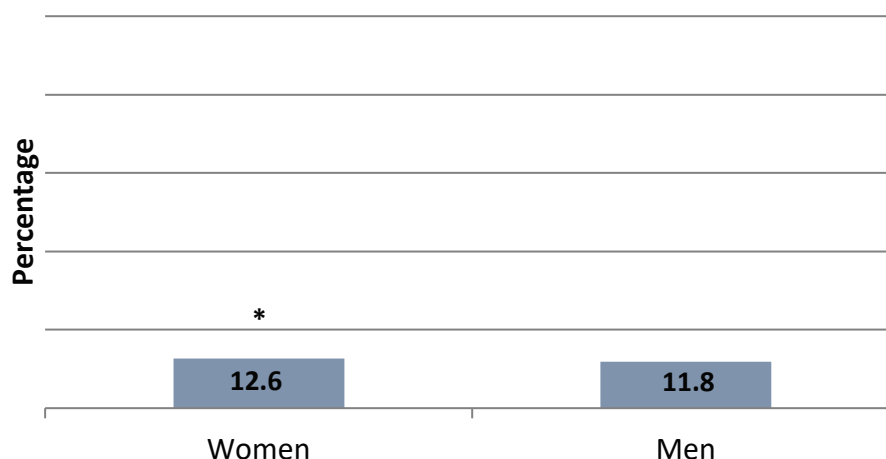
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

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<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who had an ED visit for AOD abuse or dependence were more likely than men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of being discharged. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

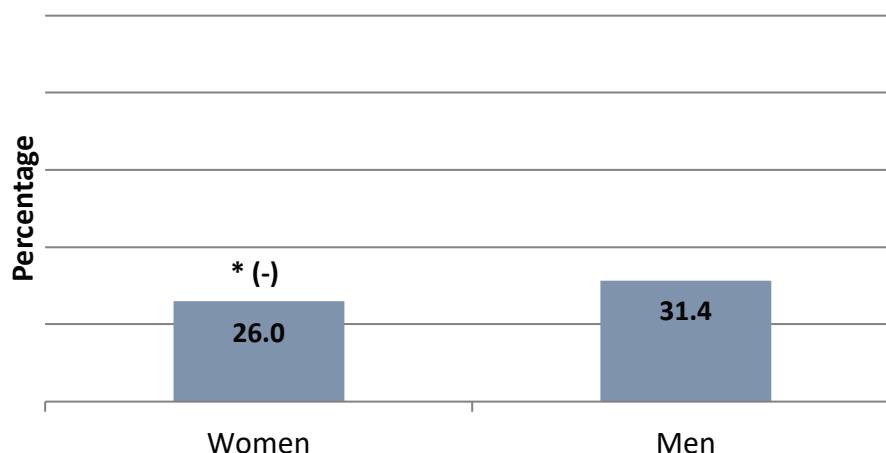
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women with a new episode of AOD dependence were less likely than men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

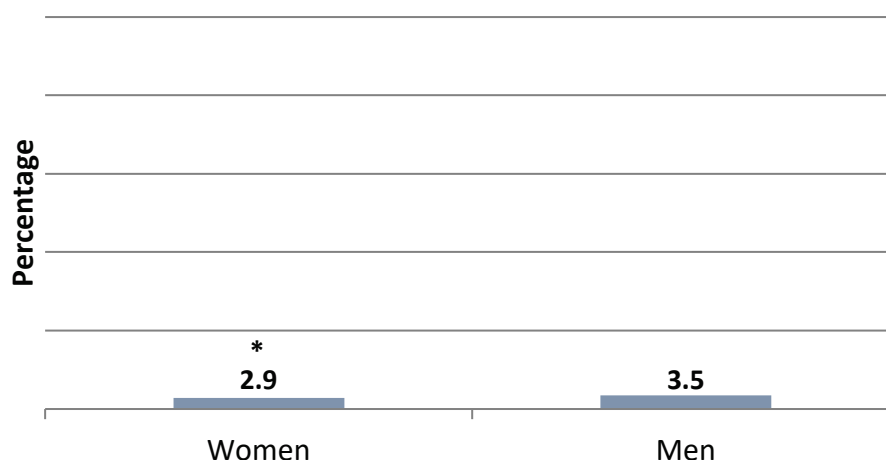
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women with a new episode of AOD dependence who initiated treatment were less likely than men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

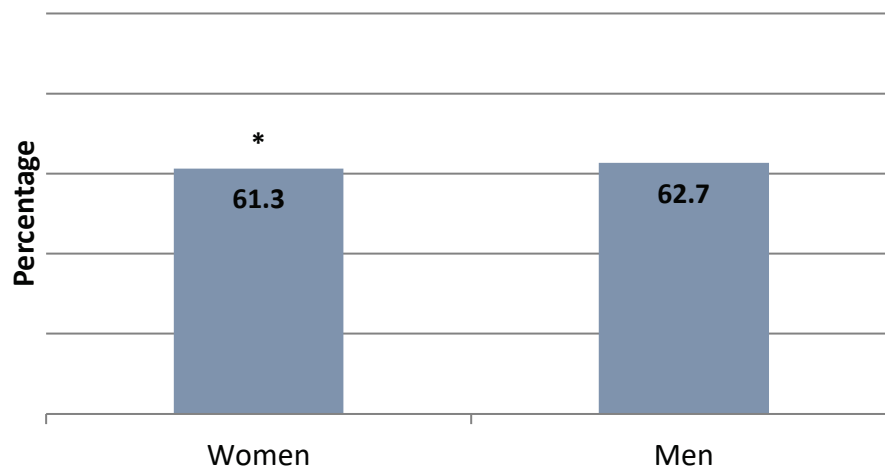
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Clinical Care: Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

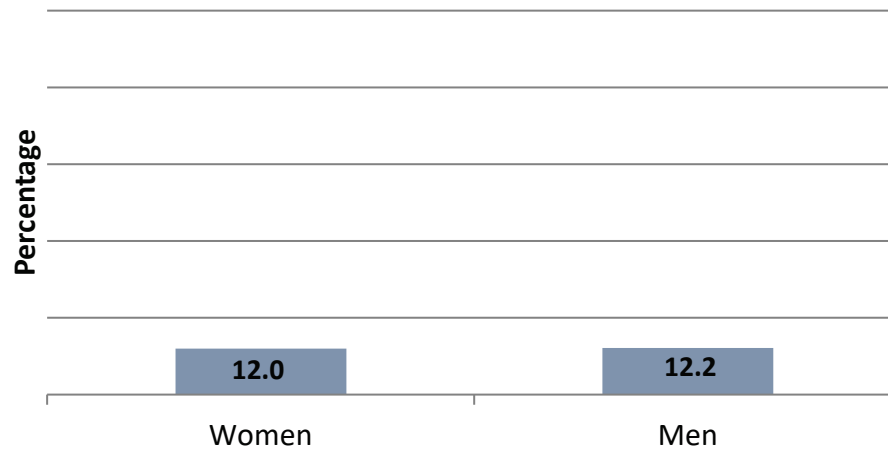
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



### Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by gender, 2018



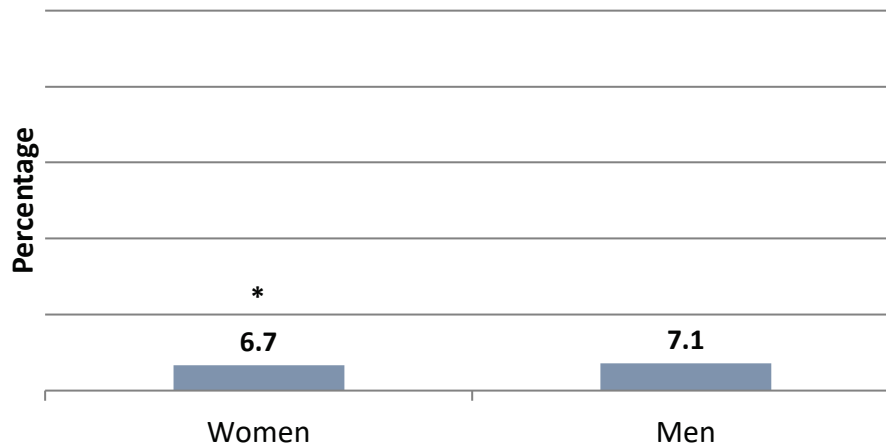
**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- The primary or ongoing care providers of women who were discharged from an inpatient facility were about as likely as the primary or ongoing care providers of men who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission.

### Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between women and men was less than 3 percentage points.

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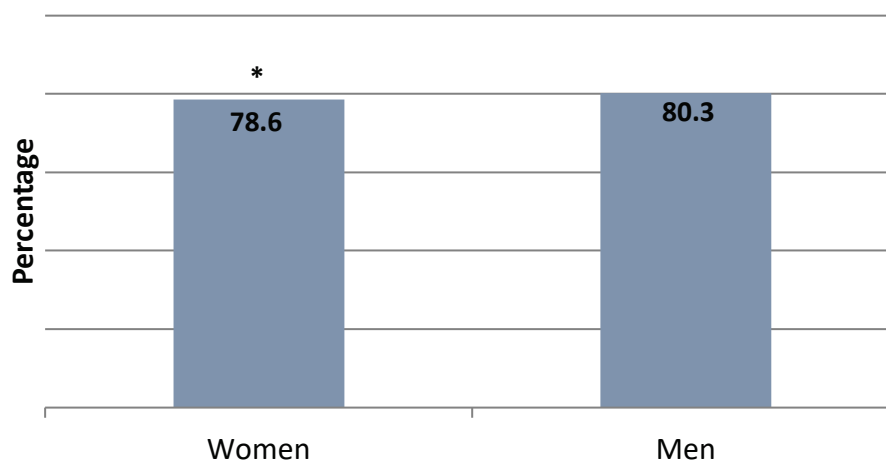
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

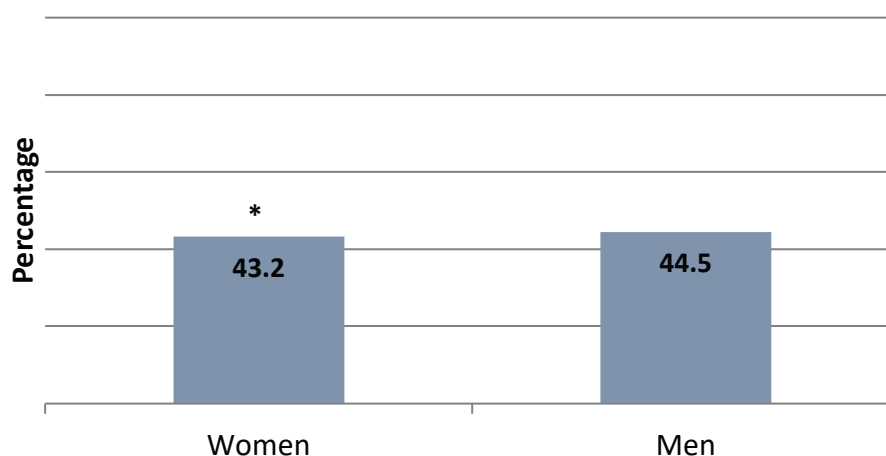
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Transitions of Care—Medication Reconciliation After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom medications were reconciled within 30 days of discharge, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have had their medications reconciled within 30 days of discharge. The difference between women and men was less than 3 percentage points.

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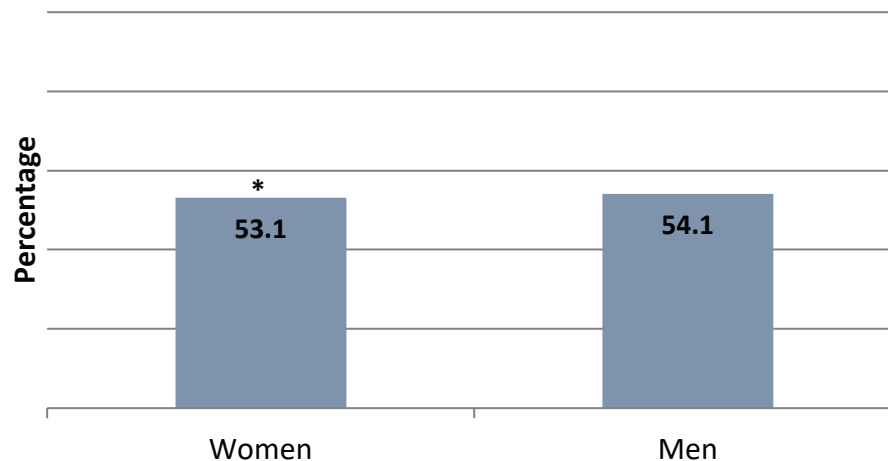
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Follow-up After Emergency Department (ED) Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Women with multiple high-risk chronic conditions were less likely than men with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

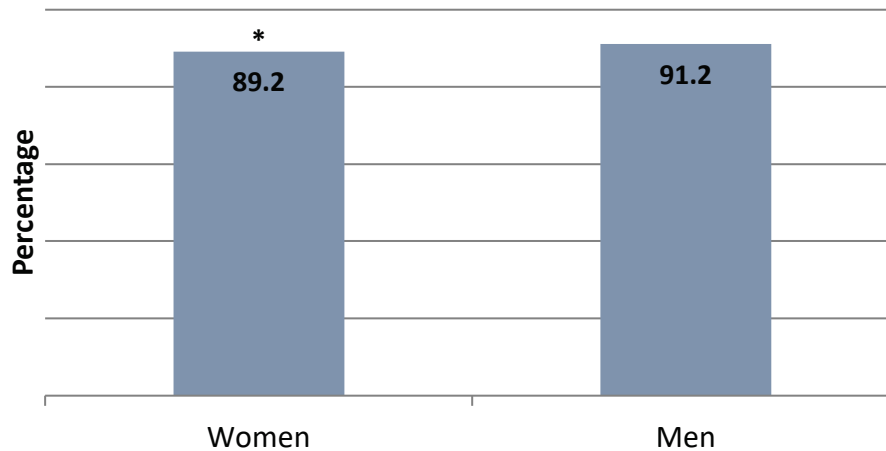
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.

## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly women with chronic renal failure than for elderly men with chronic renal failure. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

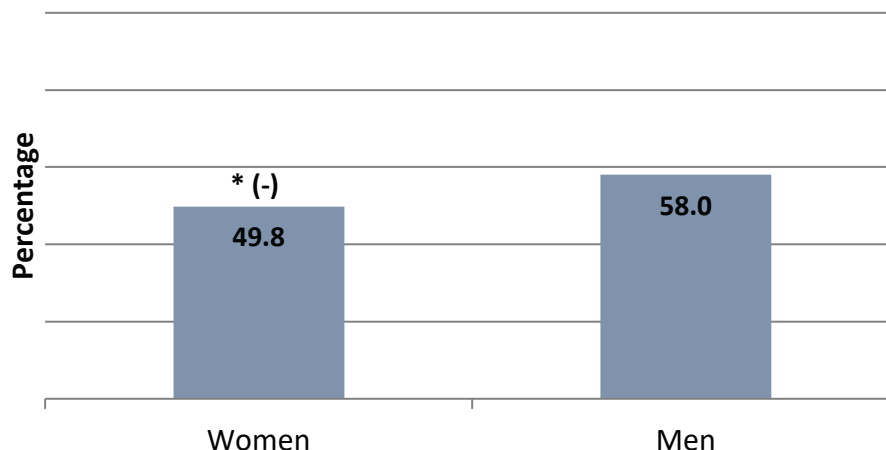
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes cyclooxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly women with dementia than for elderly men with dementia. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

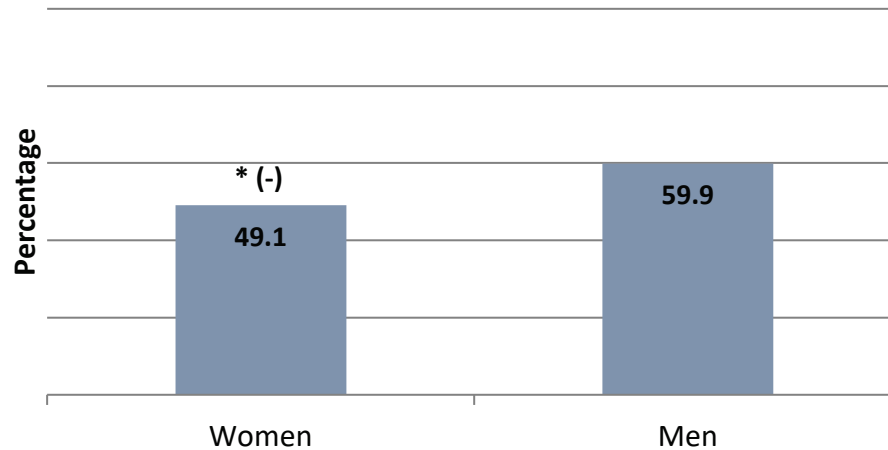
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

### Disparities

- Use of potentially harmful medication was avoided less often for elderly women with a history of falls than for elderly men with a history of falls. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

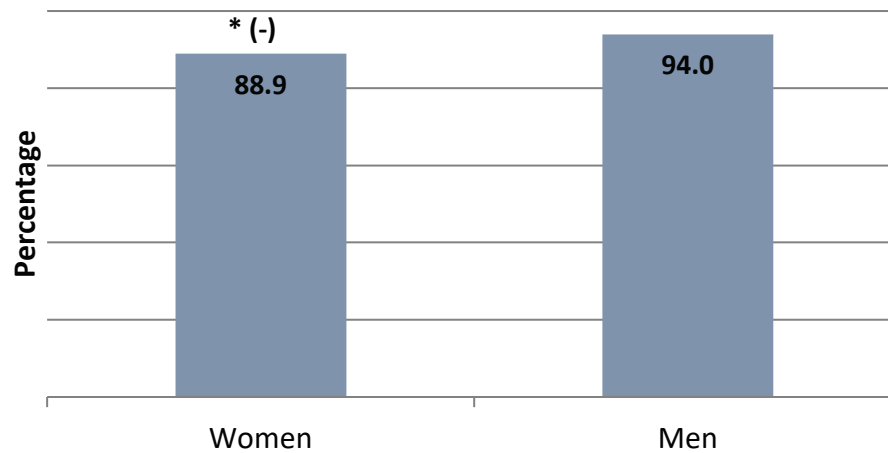
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.



### Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Use of high-risk medication was avoided less often for women than for men. The difference between women and men was greater than 3 percentage points.

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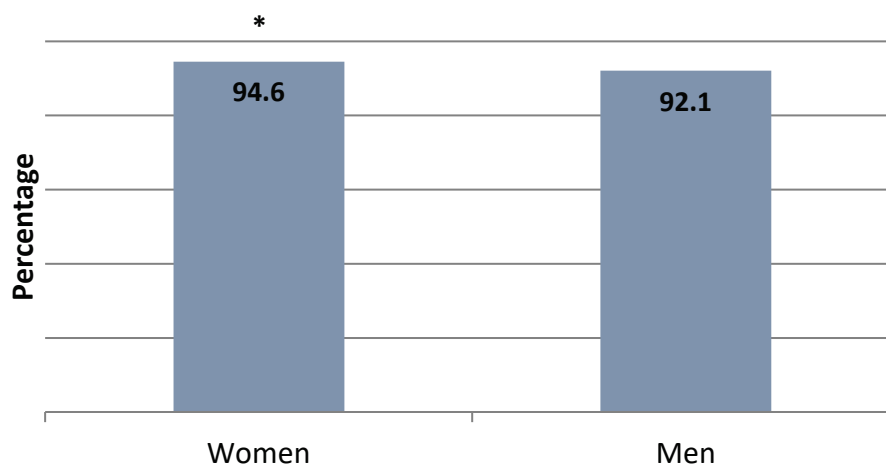
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Use of opioids at a high dosage for more than 14 days was avoided more often for women than for men. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

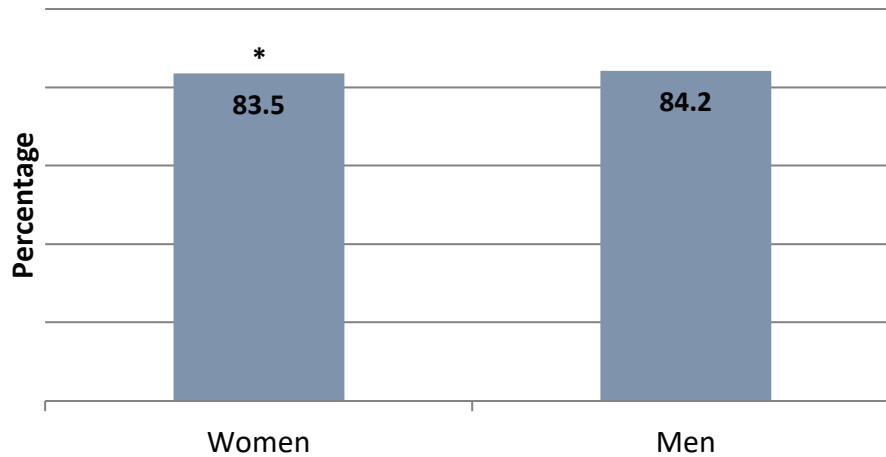
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Average morphine equivalent dose is greater than 120 mg.

### Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Use of opioids from multiple prescribers was avoided less often for women than for men. The difference between women and men was less than 3 percentage points.

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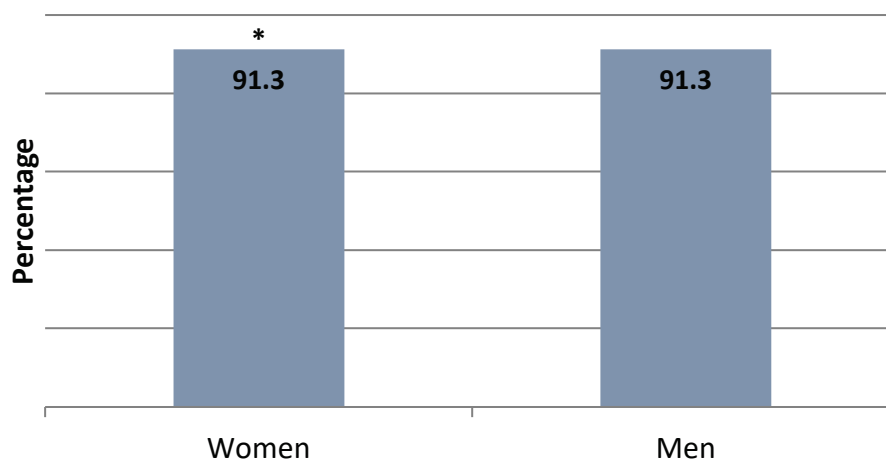
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities

- Use of opioids from multiple pharmacies was avoided more often for women than for men. The difference between women and men was less than 3 percentage points.<sup>†</sup>

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\* Significantly different from the score for men ( $p < 0.05$ ).

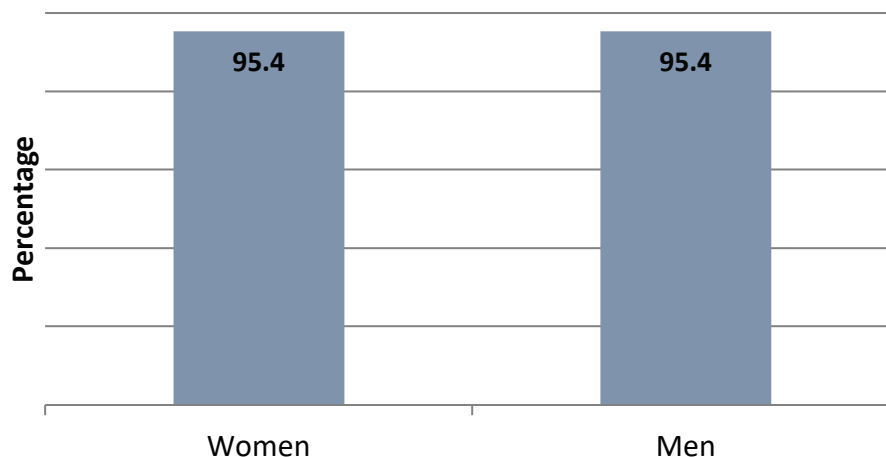
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Rounded to the hundredths place, scores for women and men are 91.32 and 91.25, respectively. Though small, this difference is statistically significant.

### Avoiding Use of Opioids from Multiple Prescribers and Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers and four or more pharmacies in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

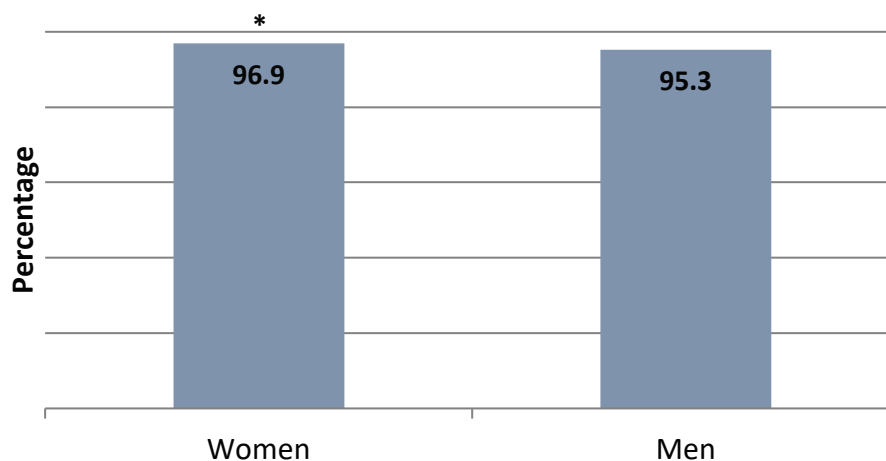
#### Disparities

- Use of opioids from multiple prescribers and pharmacies was avoided about as often for women as for men.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

#### Disparities


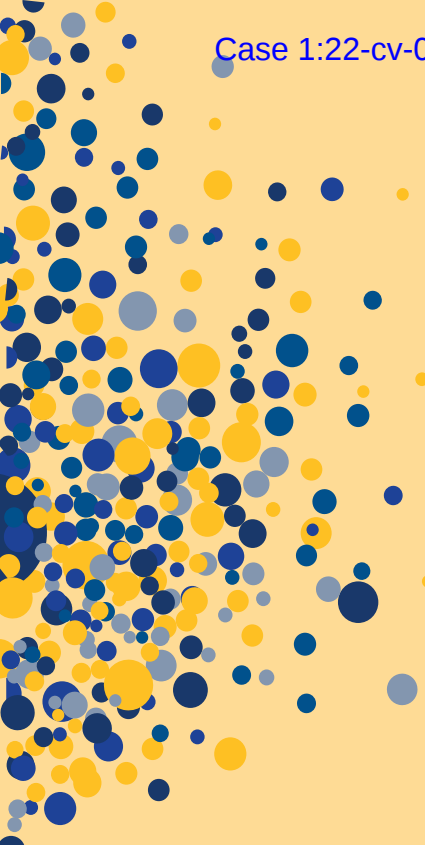
- Women were more likely than men to have had an ambulatory or preventive care visit. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

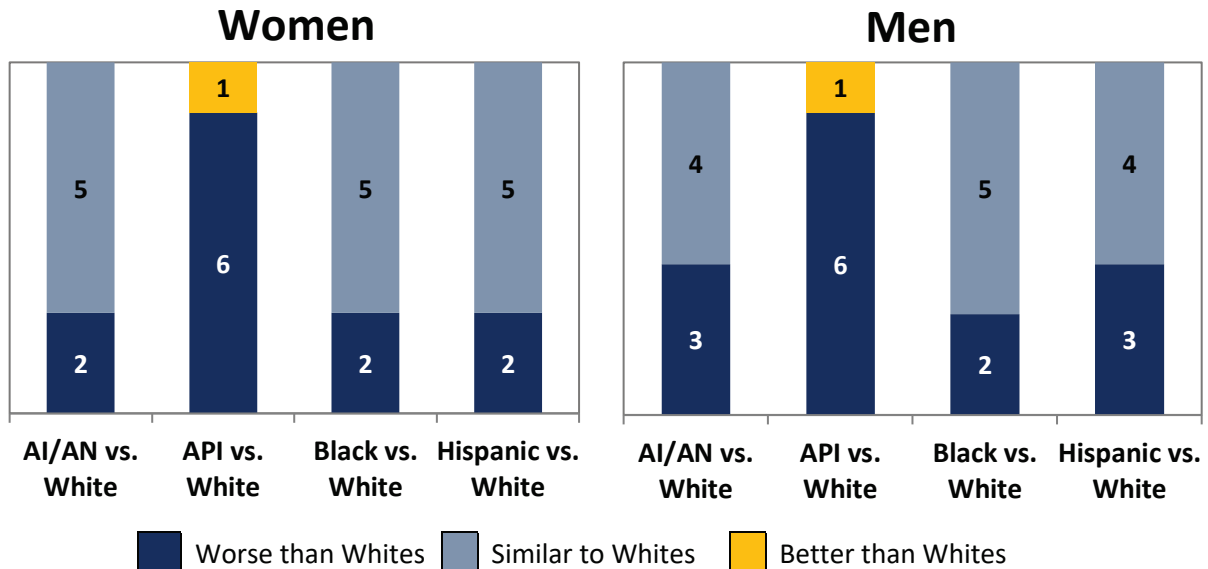


## **Section III:**

# **Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage**

## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of seven) for which women/men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women/men in 2018



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2018 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### AI/AN women received worse care than White women

- Getting needed prescription drugs
- Annual flu vaccine

### API women received worse care than White women

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs



**API women received better care than White women**

- Annual flu vaccine

**Black women received worse care than White women**

- Getting appointments and care quickly
- Annual flu vaccine

**Hispanic women received worse care than White women**

- Getting appointments and care quickly
- Annual flu vaccine

**AI/AN men received worse care than White men**

- Getting needed care
- Getting appointments and care quickly
- Getting needed prescription drugs

**API men received worse care than White men**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API men received better care than White men**

- Annual flu vaccine

**Black men received worse care than White men**

- Getting appointments and care quickly
- Annual flu vaccine

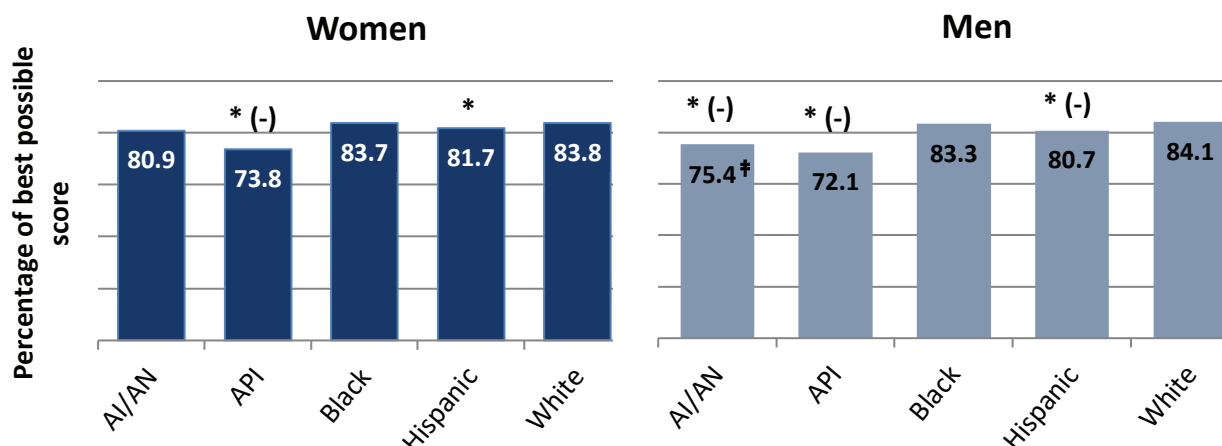
**Hispanic men received worse care than White men**

- Getting needed care
- Getting appointments and care quickly
- Annual flu vaccine

## Patient Experience

### Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- API and Hispanic women reported worse<sup>§</sup> experiences getting needed care than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. The difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences with getting needed care that were similar to the experiences reported by White women.
- AI/AN, API, and Hispanic men reported worse experiences getting needed care than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale. Black men reported experiences with getting needed care that were similar to the experiences reported by White men.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

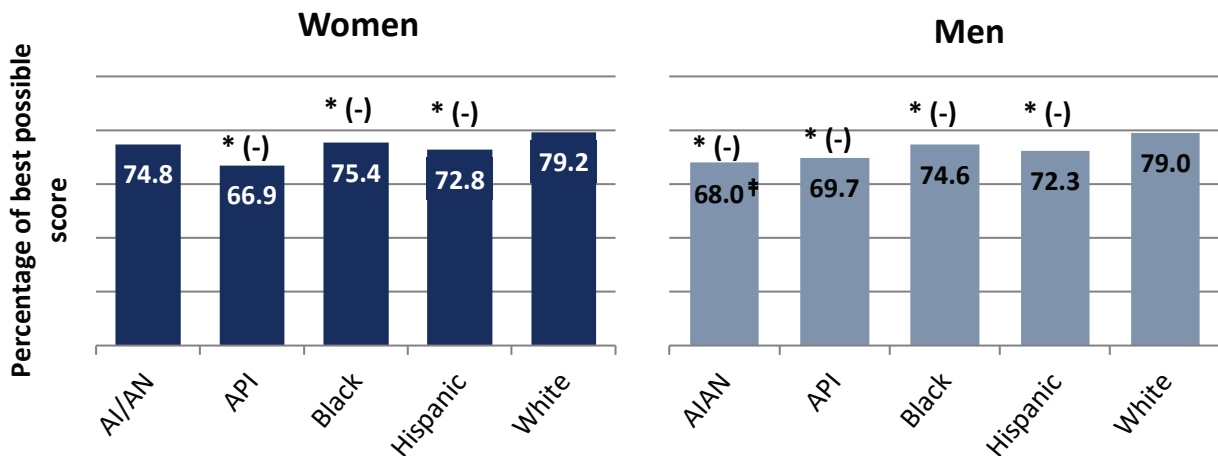
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>§</sup> Unlike on the previous two pages, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN women reported experiences with getting appointments and care quickly that were similar to the experiences White women reported. API, Black, and Hispanic women reported worse experiences getting appointments and care quickly than White women reported. In each case, the difference was greater than 3 points on a 0–100 scale.
- AI/AN, API, Black, and Hispanic men reported worse experiences getting appointments and care quickly than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

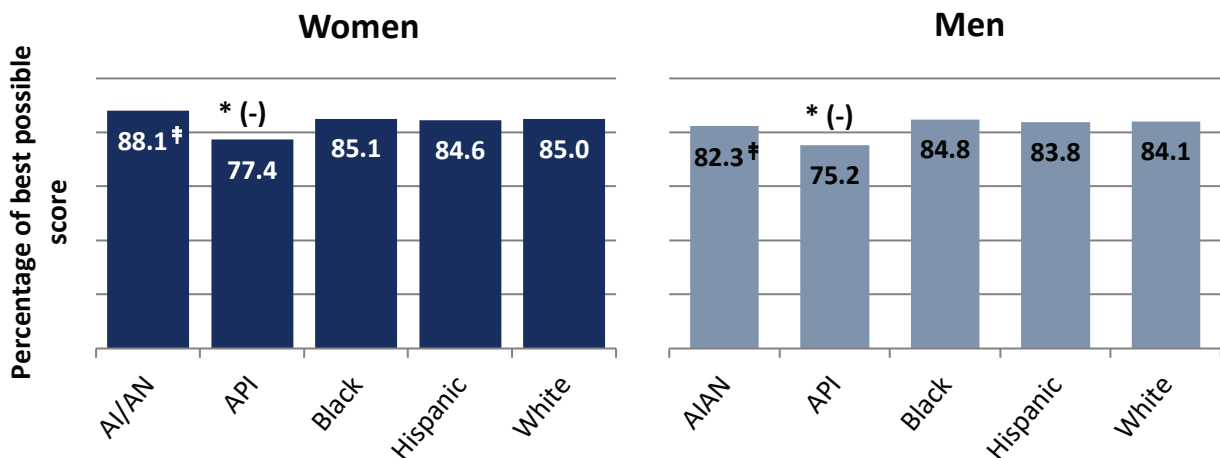
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>‡</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN, Black, and Hispanic women reported experiences with customer service that were similar to the experiences reported by White women. API women reported worse experiences with customer service than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale.
- AI/AN, Black, and Hispanic men reported experiences with customer service that were similar to the experiences reported by White men. API men reported worse experiences with customer service than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

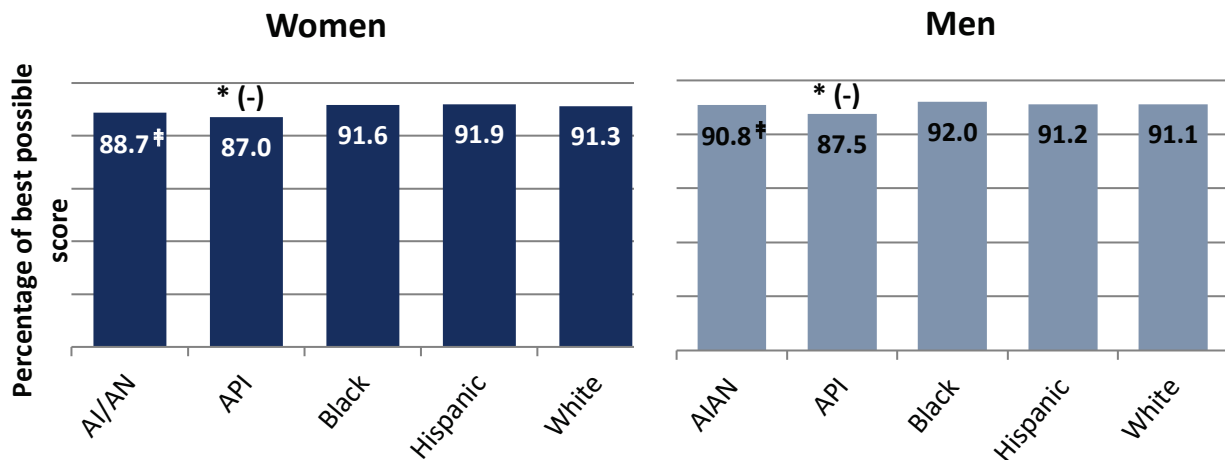
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months health plan customer service staff provided the information or help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>‡</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN, Black, and Hispanic women reported experiences with doctor communication that were similar to the experiences reported by White women. API women reported worse experiences with doctor communication than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale.
- AI/AN, Black, and Hispanic men reported experiences with doctor communication that were similar to the experiences reported by White men. API men reported worse experiences with doctor communication than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

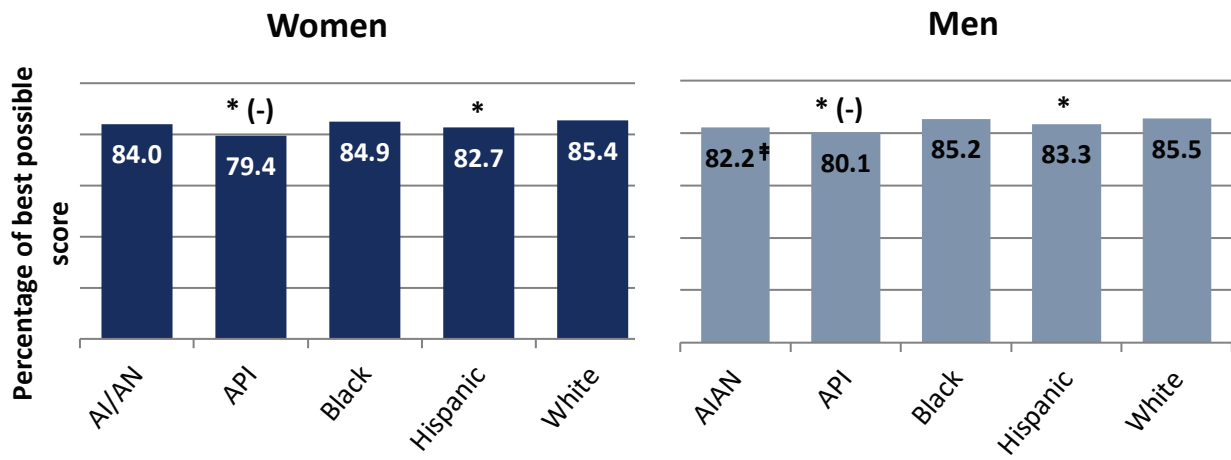
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care was coordinated,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>†</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN and Black women reported experiences with care coordination that were similar to the experiences reported by White women. API and Hispanic women reported worse experiences with care coordination than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale; the difference between Hispanic and White women was less than 3 points on a 0–100 scale.
- AI/AN and Black men reported experiences with care coordination that were similar to the experiences reported by White men. API and Hispanic men reported worse experiences with care coordination than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale; the difference between Hispanic and White men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

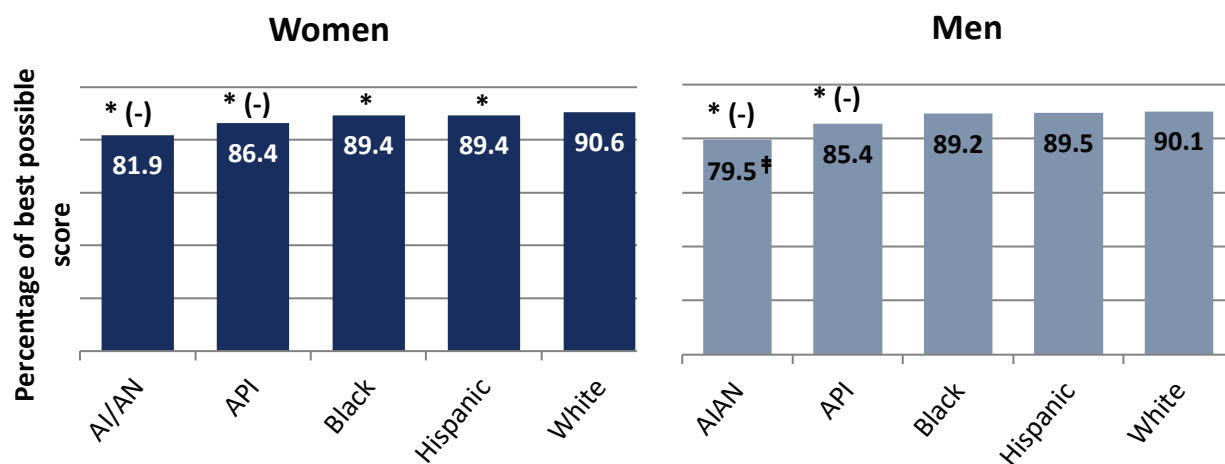
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

<sup>‡</sup> This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN, API, Black, and Hispanic women reported worse experiences getting needed prescription drugs than White women reported. The difference between AI/AN and White women was greater than 3 points on a 0–100 scale, as was the difference between API women and White women. The difference between Black and White women was less than 3 points on a 0–100 scale, as was the difference between Hispanic and White women.
- AI/AN and API men reported worse experiences getting needed prescription drugs than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences getting needed prescription drugs that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

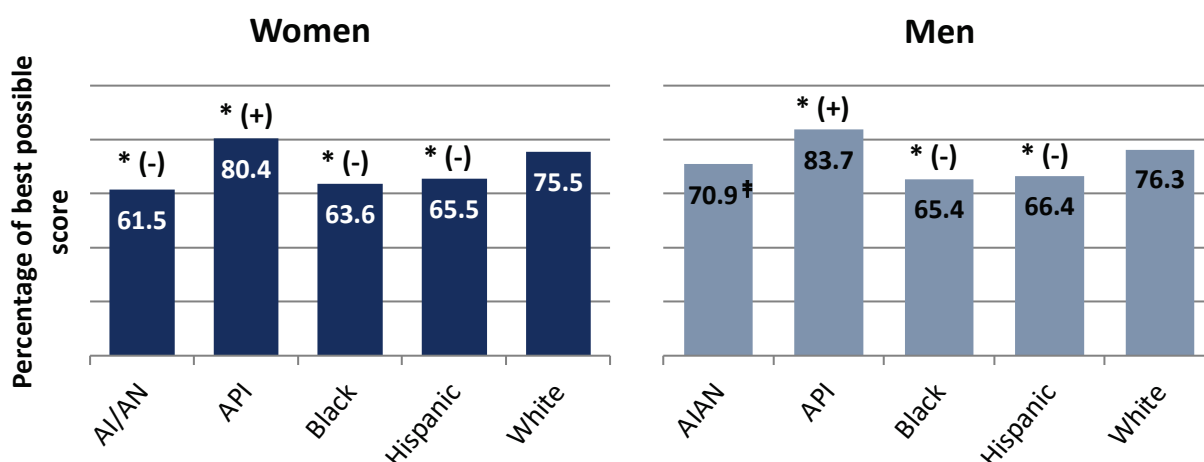
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last six months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race and ethnicity within gender, 2018



**SOURCE:** Data from the Medicare CAHPS survey, 2018.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

† This score is based on fewer than 400 completed observations, and thus its precision may be low.

### Disparities

- AI/AN, Black, and Hispanic women were less likely than White women to have received the flu vaccine. In each case, the difference was greater than 3 percentage points. API women were more likely than White women to have received the flu vaccine. The difference between API women and White women was also greater than 3 percentage points.
- AI/AN men were about as likely as White men to have received the flu vaccine. API men were more likely than White men to have received the flu vaccine. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have received the flu vaccine. In each case, the difference was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

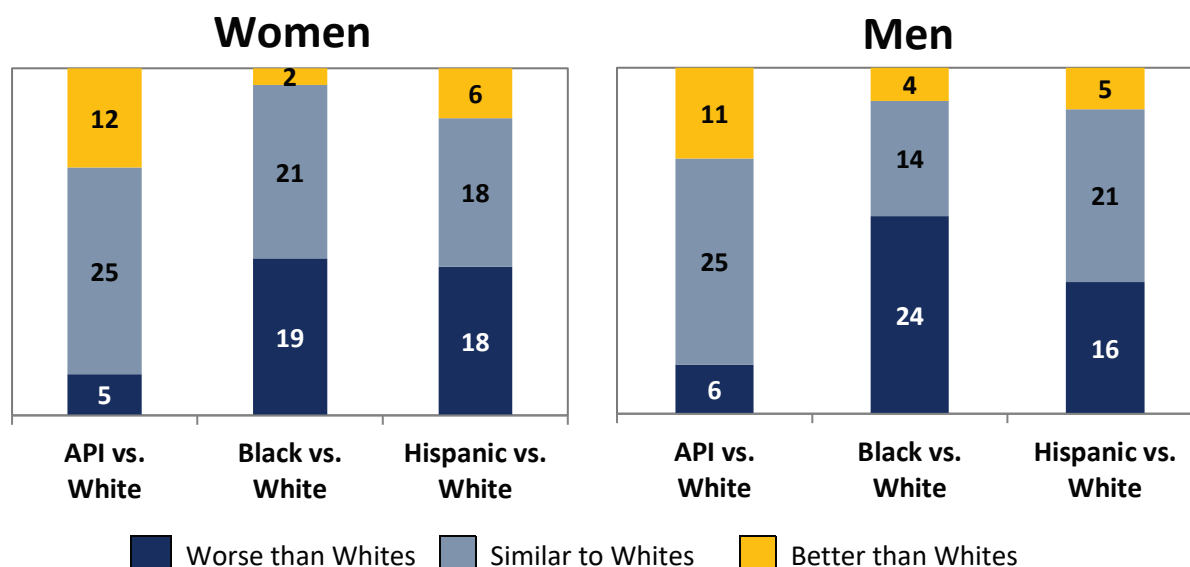
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 42) for which women/men of selected racial and ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2018



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic.

Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### API women received worse care than White women

- Controlling high blood pressure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol and other drug dependence treatment
- Transitions of care—medication reconciliation after inpatient discharge

**API women received better care than White women**

- Colorectal cancer screening
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Medication reconciliation after hospital discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of high-risk medications in the elderly
- Avoiding use of opioids at high dosage

**Black women received worse care than White women**

- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within seven days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within seven days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—medication reconciliation after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black women received better care than White women**

- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic women received worse care than White women**

- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after ED visit for mental illness (within seven days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Initiation of alcohol and other drug dependence treatment
- Transitions of care—notification of inpatient admission
- Transitions of care—medication reconciliation after inpatient discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding use of opioids from multiple pharmacies
- Avoiding use of opioids from multiple prescribers and pharmacies

**Hispanic women received better care than White women**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Statin use in patients with diabetes
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Transitions of care—patient engagement after inpatient discharge

**API men received worse care than White men**

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol and other drug dependence treatment
- Transitions of care—notification of inpatient admission
- Transitions of care—medication reconciliation after inpatient discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**API men received better care than White men**

- Colorectal cancer screening
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of opioids at high dosage

**Black men received worse care than White men**

- Colorectal cancer screening
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Statin use in patients with cardiovascular disease
- Medication adherence for cardiovascular disease—statins
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Rheumatoid arthritis management
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Follow-up after ED visit for mental illness (within seven days of discharge)
- Follow-up after ED visit for mental illness (within 30 days of discharge)
- Follow-up after ED visit for AOD abuse or dependence (within 30 days of discharge)
- Medication reconciliation after hospital discharge
- Transitions of care—notification of inpatient admission
- Transitions of care—patient engagement after inpatient discharge
- Transitions of care—medication reconciliation after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure

**Black men received better care than White men**

- Initiation of alcohol and other drug dependence treatment
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Avoiding use of opioids at high dosage

**Hispanic men received worse care than White men**

- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Controlling high blood pressure
- Continuous beta-blocker treatment after a heart attack
- Medication adherence for cardiovascular disease—statins
- Medication adherence for diabetes—statins
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol and other drug dependence treatment
- Transitions of care—notification of inpatient admission
- Transitions of care—receipt of discharge information
- Transitions of care—medication reconciliation after inpatient discharge
- Follow-up after ED visit for people with high-risk multiple chronic conditions
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding use of opioids from multiple pharmacies
- Avoiding use of opioids from multiple prescribers and pharmacies

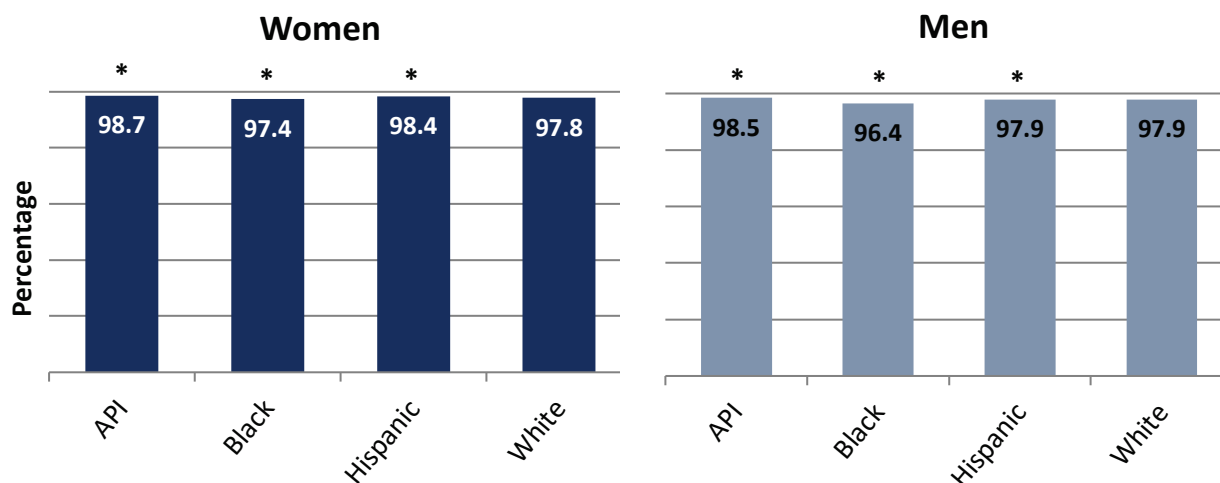
**Hispanic men received better care than White men**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)
- Avoiding use of opioids at high dosage

## Clinical Care: Prevention and Screening

### Adult Body Mass Index (BMI) Assessment

Percentage of Medicare enrollees aged 18 to 74 years who had an outpatient visit whose BMI was documented in the past two years, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Hispanic women were more likely than White women to have had their BMIs documented, whereas Black women were less likely than White women to have had their BMIs documented. In each case, the difference was less than 3 percentage points.
- API men were more likely than White men to have had their BMIs documented, whereas Black and Hispanic men were less likely than White men to have had their BMIs documented.<sup>†</sup> In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

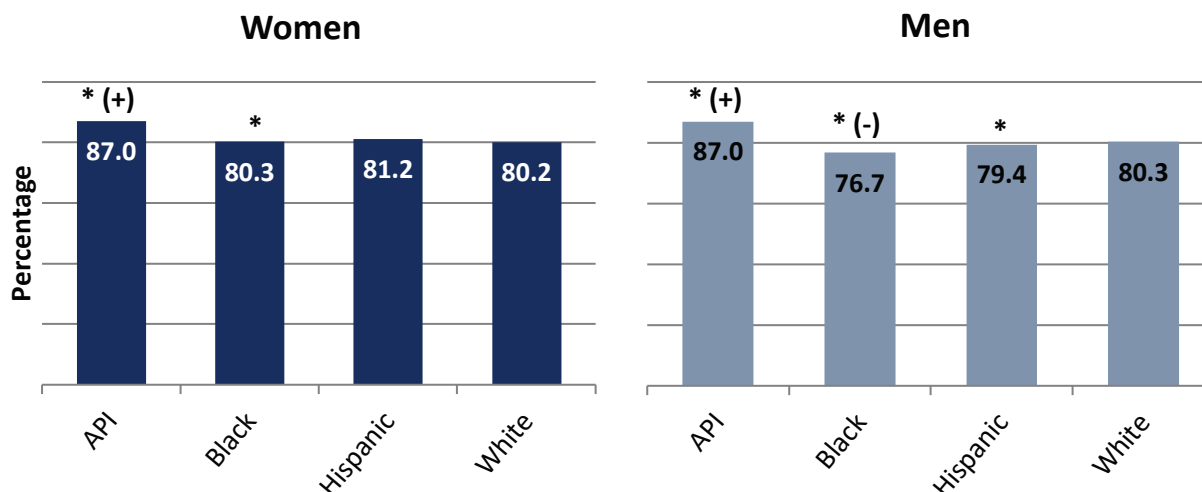
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- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Rounded to the hundredths place, scores for Hispanic men and White men are 97.90 and 97.91, respectively. Though small, this difference is statistically significant.

## Colorectal Cancer Screening

Percentage of MA enrollees aged 50 to 75 years who had appropriate screening for colorectal cancer, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Black women were more likely than White women to have been appropriately screened for colorectal cancer. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points. Hispanic women were about as likely as White women to have been appropriately screened for colorectal cancer.
- API men were more likely than White men to have been appropriately screened for colorectal cancer. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have been appropriately screened for colorectal cancer. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

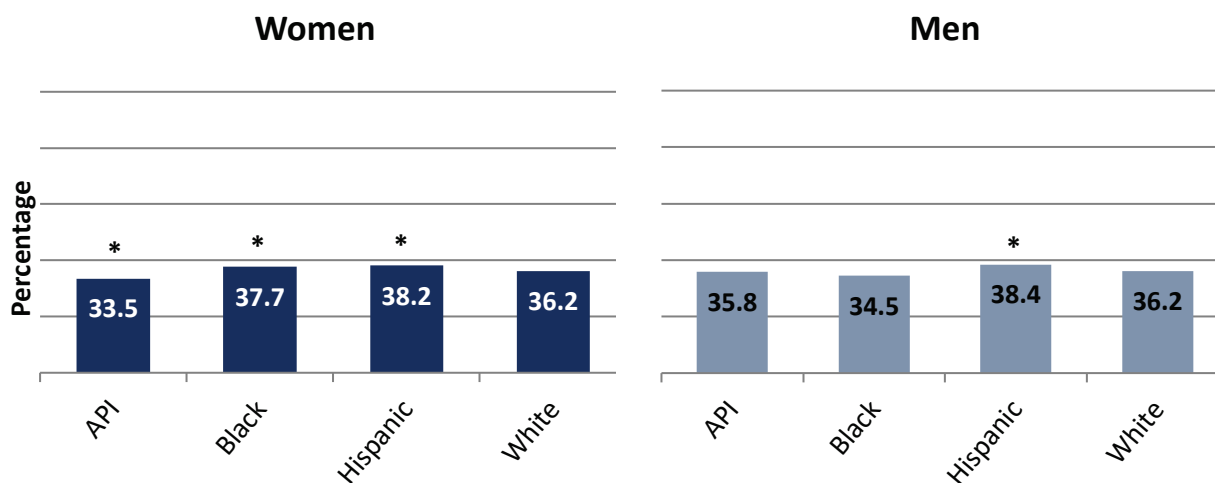
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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Respiratory Conditions

### Testing to Confirm COPD

Percentage of MA enrollees aged 40 years and older with a new diagnosis of chronic obstructive pulmonary disease (COPD) or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women with a new diagnosis of COPD or newly active COPD were less likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. Black and Hispanic women with a new diagnosis of COPD or newly active COPD were more likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. In each case, the difference was less than 3 percentage points.
- API and Black men with a new diagnosis of COPD or newly active COPD were about as likely as White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. Hispanic men with a new diagnosis of COPD or newly active COPD were more likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Hispanic men and White men was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

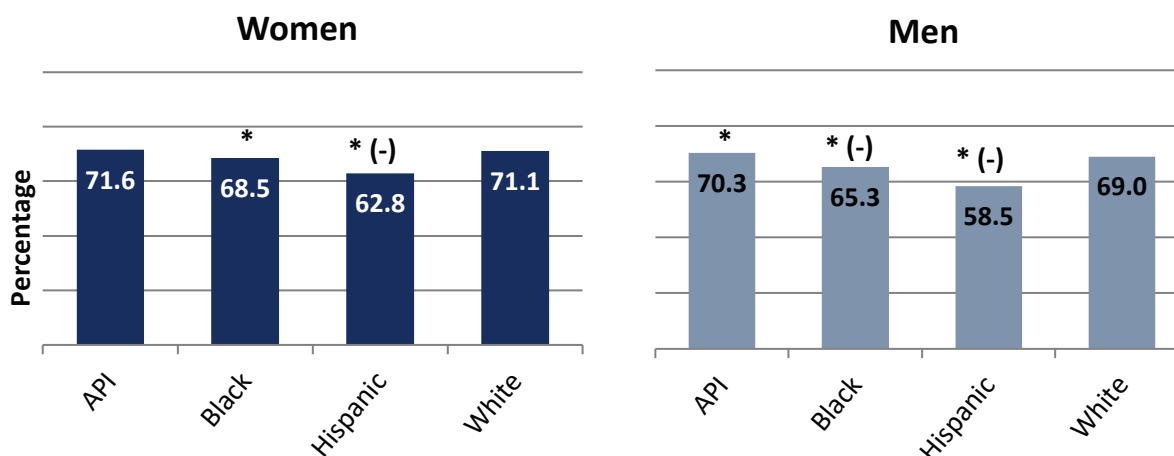
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- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a systemic corticosteroid within 14 days of the event, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who experienced a COPD exacerbation were about as likely as White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. Black and Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between API men and White men was less than 3 percentage points. Black and Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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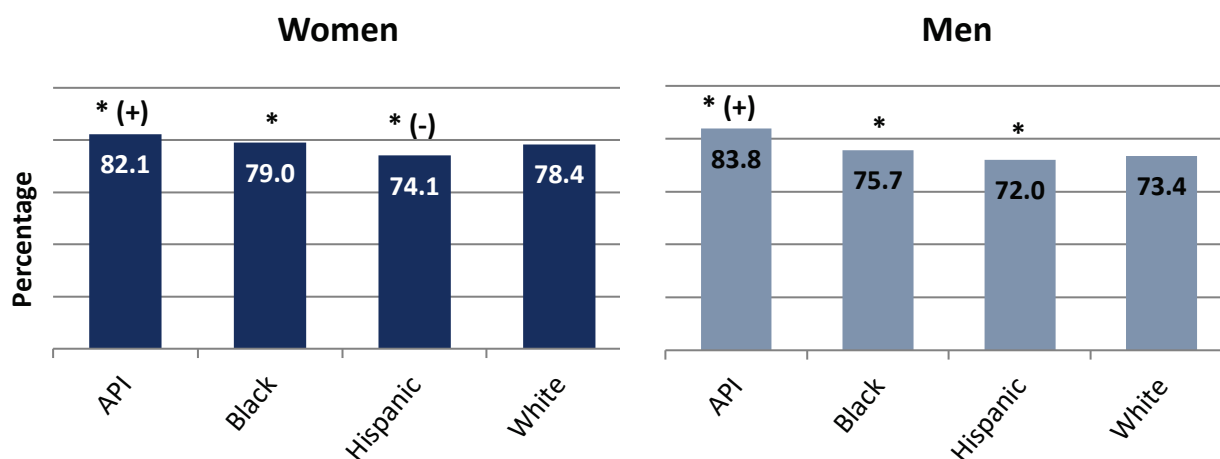
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Black women who experienced a COPD exacerbation were more likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points. Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanic women and White women was greater than 3 percentage points.
- API and Black men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API men and White men was greater than 3 percentage points. The difference between Black men and White men was less than 3 percentage points. Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanic men and White men was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

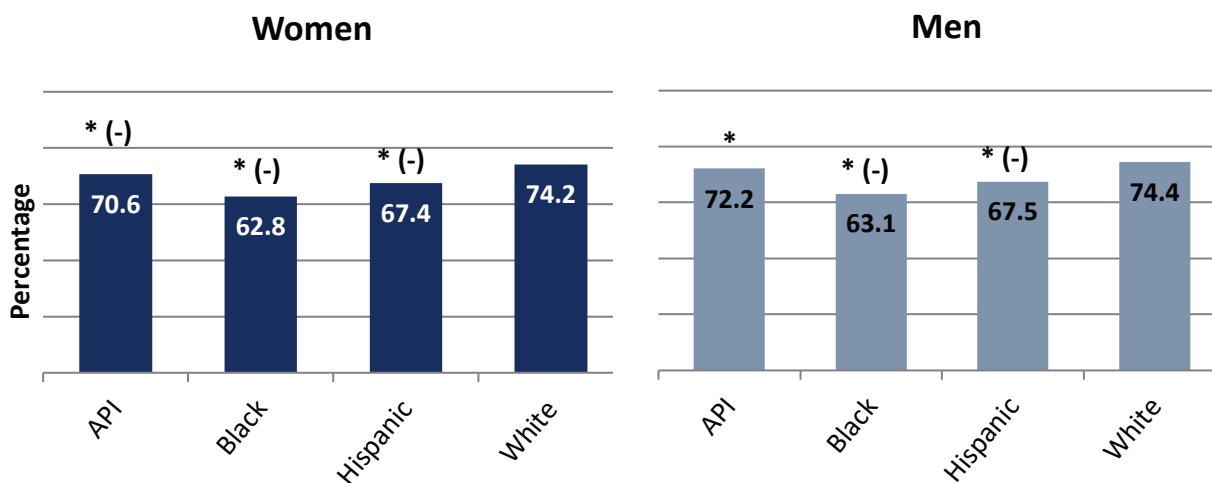
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Cardiovascular Conditions

### Controlling High Blood Pressure

Percentage of MA enrollees aged 18 to 85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women who had a diagnosis of hypertension were less likely than White women who had a diagnosis of hypertension to have had their blood pressure adequately controlled. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who had a diagnosis of hypertension were less likely than White men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between API men and White men was less than 3 percentage points. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

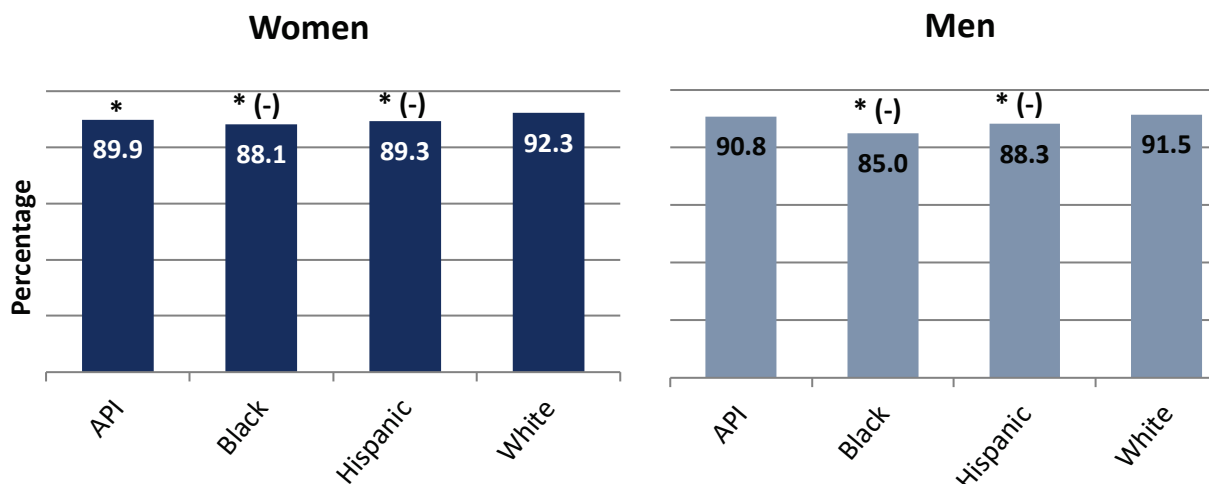
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Less than 140/90 for enrollees 18 to 59 years of age and for enrollees 60 to 85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60 to 85 years of age without a diagnosis of diabetes.

## Continuous Beta-Blocker Treatment

Percentage of MA enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) who received persistent beta-blocker treatment for six months after discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women who were hospitalized for a heart attack were less likely than White women who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between API women and White women was less than 3 percentage points. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who were hospitalized for a heart attack were about as likely as White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. Black and Hispanic men who were hospitalized for a heart attack were less likely than White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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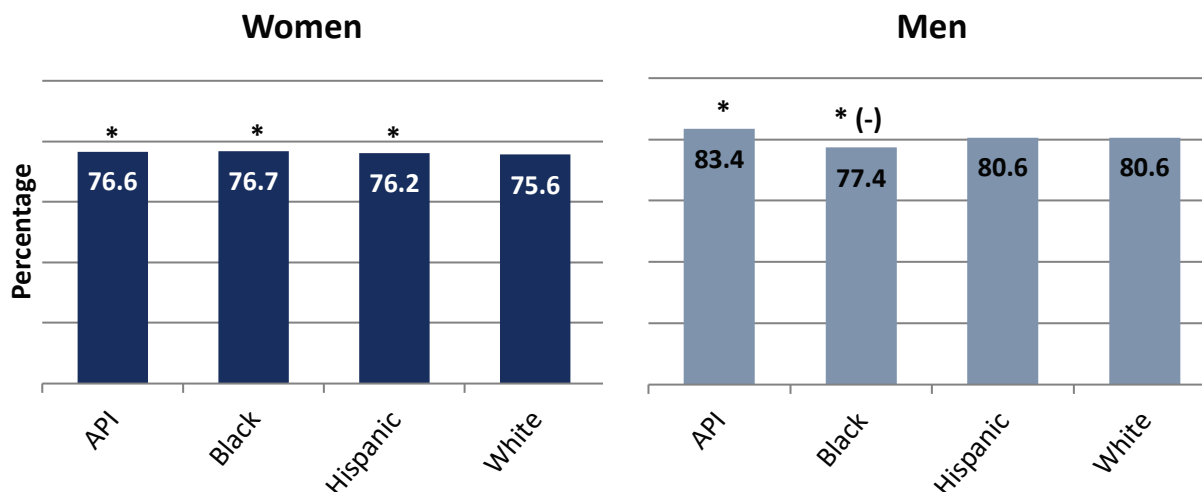
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Statin Use in Patients with Cardiovascular Disease

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women with ASCVD were more likely than White women with ASCVD to have received statin therapy. In each case, the difference was less than 3 percentage points.
- API men with ASCVD were more likely than White men with ASCVD to have received statin therapy. The difference between API men and White men was less than 3 percentage points. Black men with ASCVD were less likely than White men with ASCVD to have received statin therapy. The difference between Black men and White men was greater than 3 percentage points. Hispanic men with ASCVD were about as likely as White men with ASCVD to have received statin therapy.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

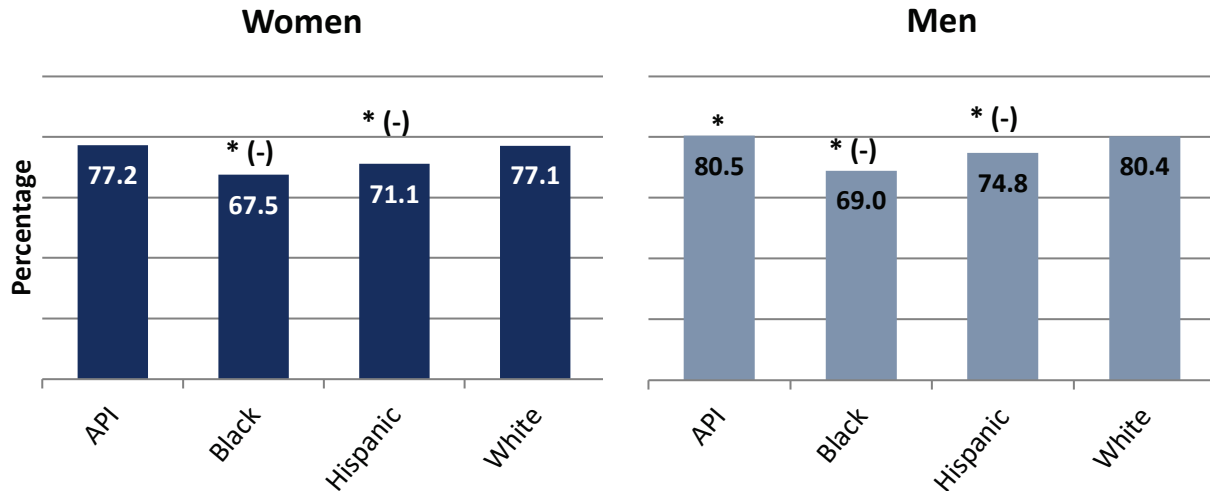
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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.



## Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years with clinical atherosclerotic cardiovascular disease (ASCVD) who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women with ASCVD were about as likely as White women with ASCVD to have had proper statin medication adherence. Black and Hispanic women with ASCVD were less likely than White women with ASCVD to have had proper statin medication adherence. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men with ASCVD were more likely than White men with ASCVD to have had proper statin medication adherence. The difference between API men and White men was less than 3 percentage points. Black and Hispanic men with ASCVD were less likely than White men with ASCVD to have had proper statin medication adherence. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

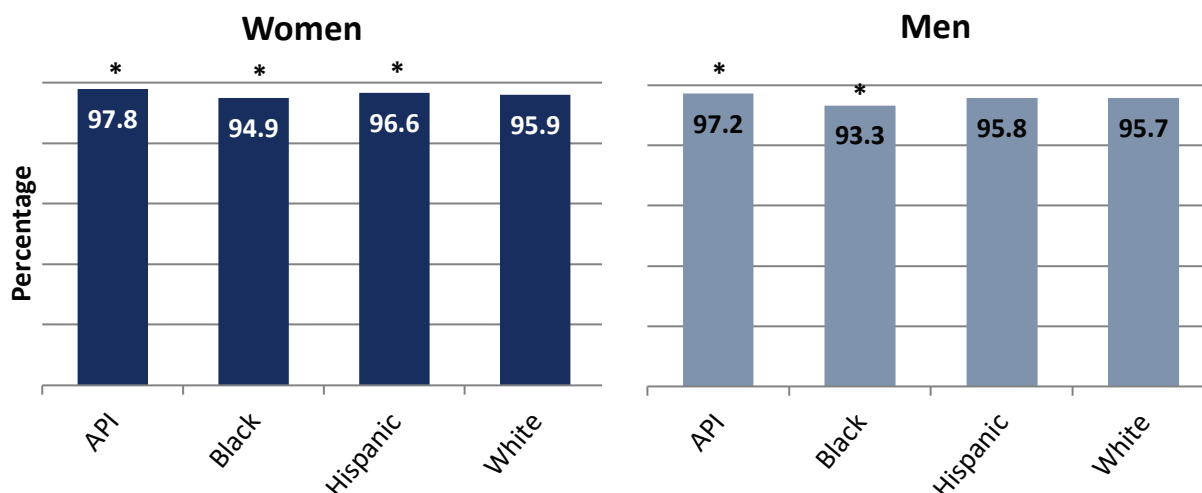
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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Diabetes

### Diabetes Care—Blood Sugar Testing

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women with diabetes were less likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between API men and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black men and White men was less than 3 percentage points. Hispanic men with diabetes were about as likely as White men with diabetes to have had their blood sugar tested at least once in the past year.

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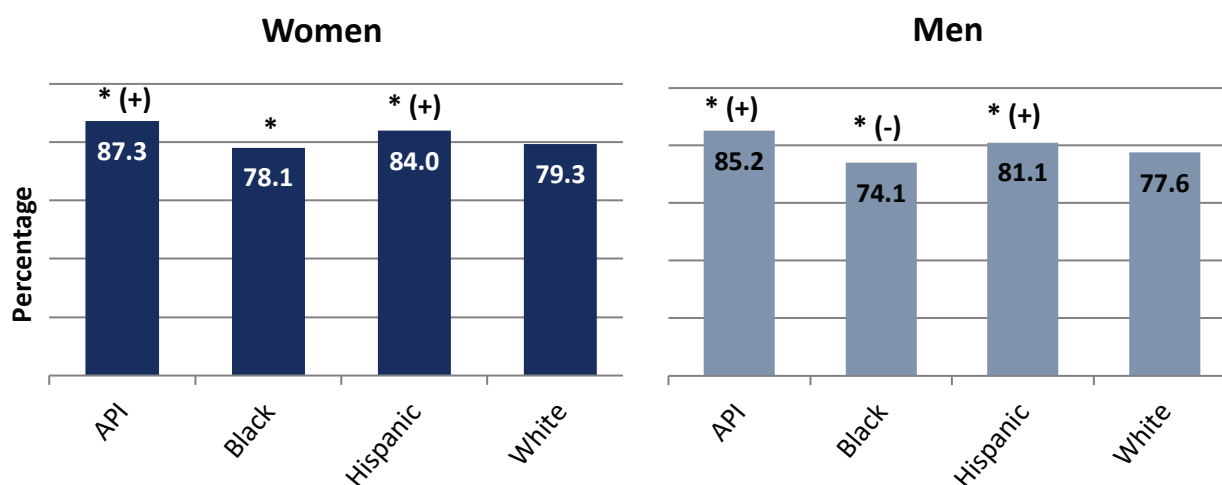
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Diabetes Care—Eye Exam

Percentage of Medicare Advantage enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had an eye exam in the past year. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. Black women with diabetes were less likely than White women with diabetes to have had an eye exam in the past year. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had an eye exam in the past year. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with diabetes were less likely than White men with diabetes to have had an eye exam in the past year. The difference between Black men and White men was greater than 3 percentage points.

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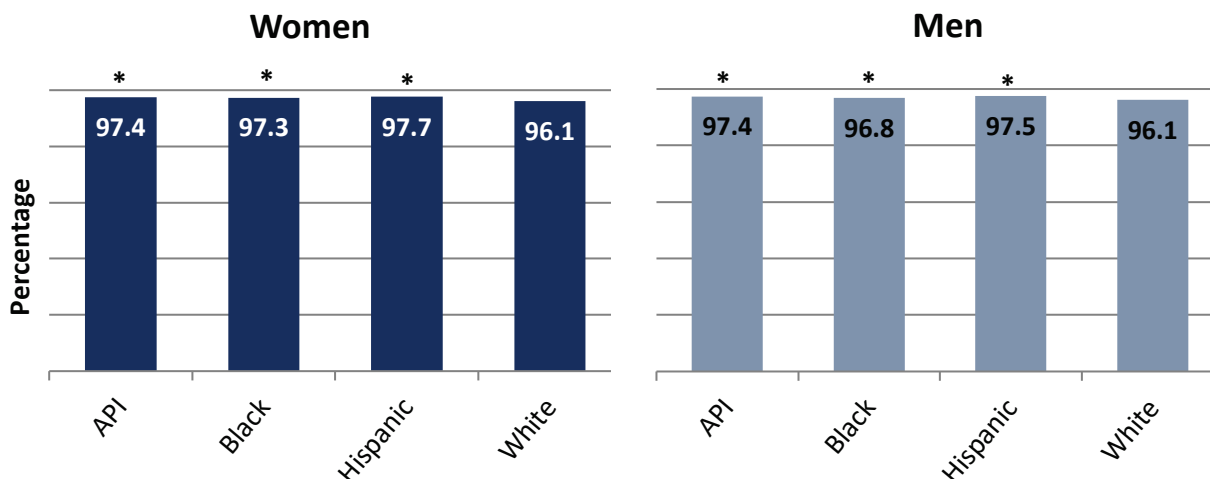
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare Advantage enrollees aged 18 to 75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men with diabetes were more likely than White men with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

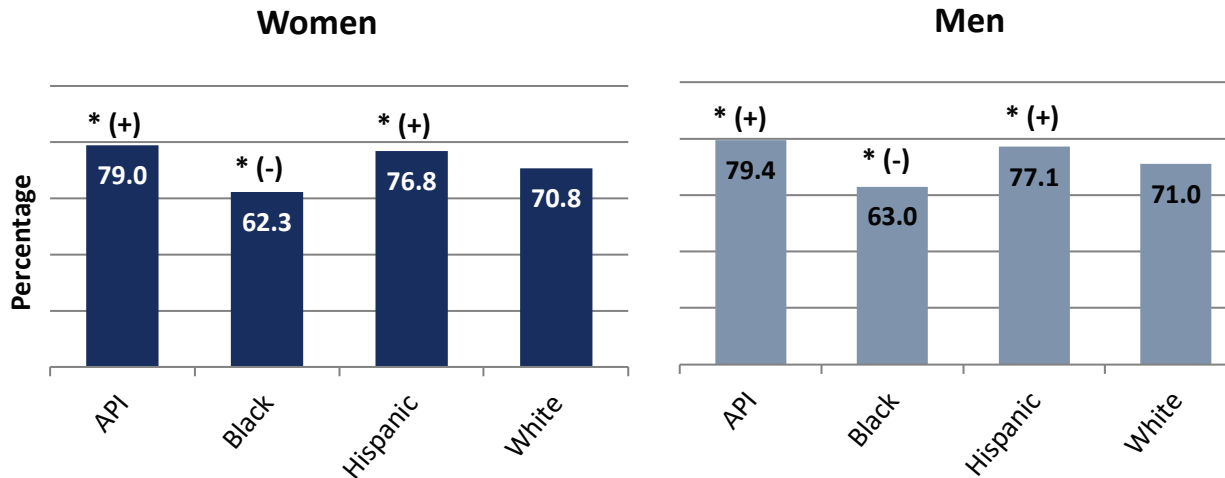
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Diabetes Care—Blood Pressure Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood pressure under control. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. Black women with diabetes were less likely than White women with diabetes to have their blood pressure under control. The difference between Black women and White women was greater than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood pressure under control. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with diabetes were less likely than White men with diabetes to have their blood pressure under control. The difference between Black men and White men was greater than 3 percentage points.

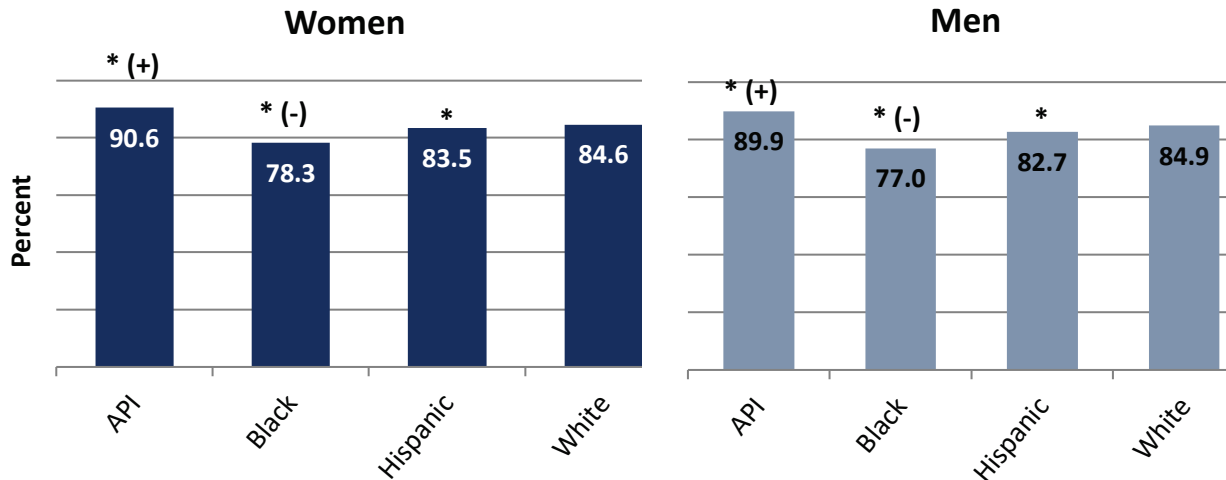
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Diabetes Care—Blood Sugar Controlled

Percentage of MA enrollees aged 18 to 75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women with diabetes were more likely than White women with diabetes to have their blood sugar levels under control. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women with diabetes were less likely than White women with diabetes to have their blood sugar levels under control. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have their blood sugar levels under control. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men with diabetes were less likely than White men with diabetes to have their blood sugar levels under control. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

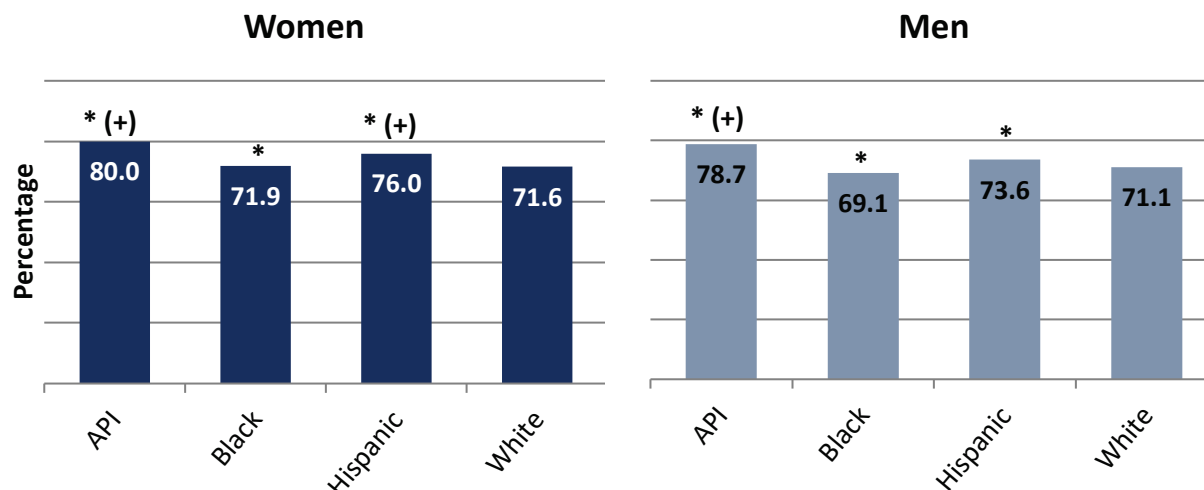
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have received statin therapy. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have received statin therapy. The difference between API men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have received statin therapy. The difference between Black men and White men was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

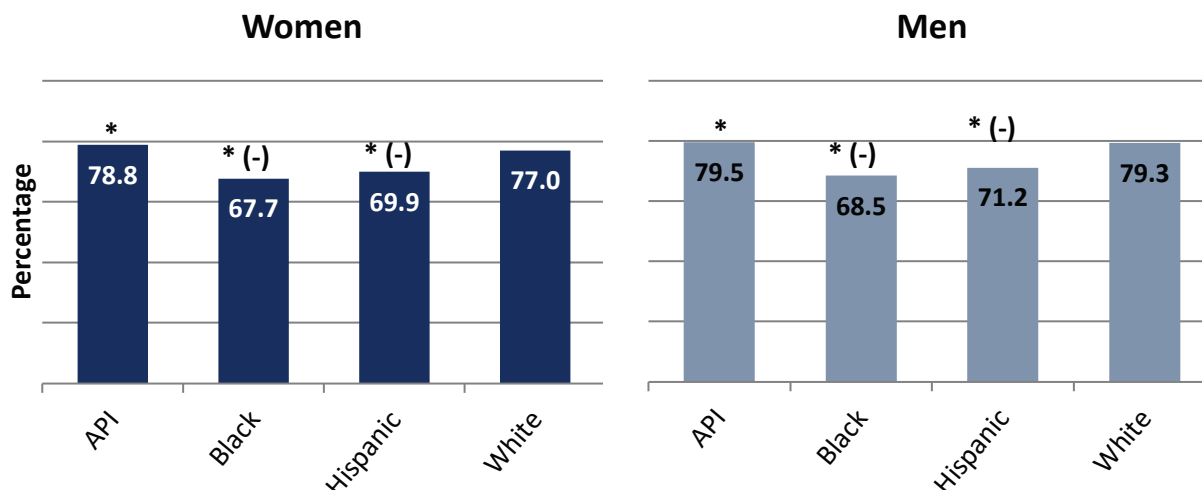
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.



## Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women with diabetes were more likely than White women with diabetes to have had proper statin medication adherence. The difference between API women and White women was less than 3 percentage points. Black and Hispanic women with diabetes were less likely than White women with diabetes to have had proper statin medication adherence. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men with diabetes were more likely than White men with diabetes to have had proper statin medication adherence. The difference between API men and White men was less than 3 percentage points. Black and Hispanic men with diabetes were less likely than White men with diabetes to have had proper statin medication adherence. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

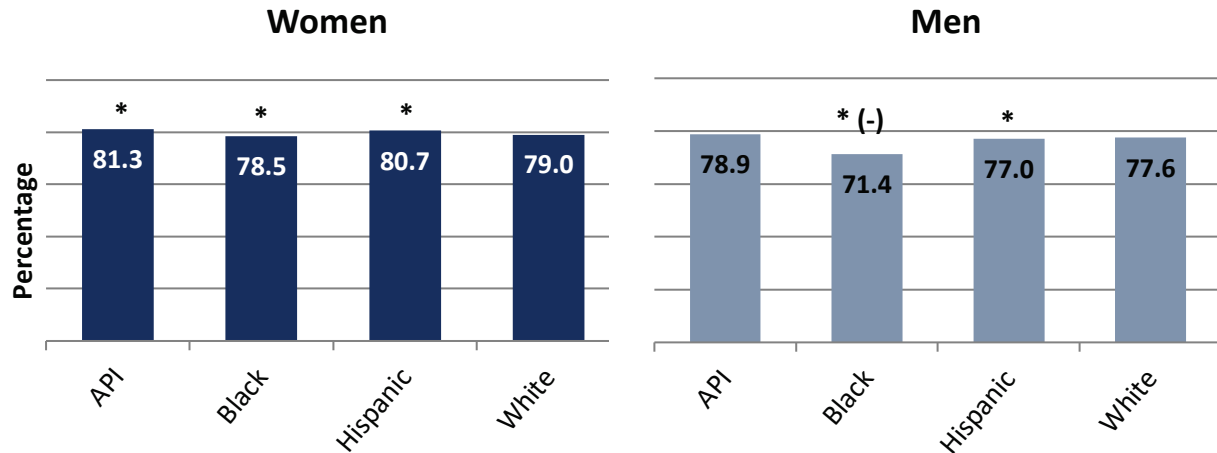
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

## Clinical Care: Musculoskeletal Conditions

### Rheumatoid Arthritis Management

Percentage of MA enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API and Hispanic women who were diagnosed with rheumatoid arthritis were more likely than White women who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between API women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women. Black women who were diagnosed with rheumatoid arthritis were less likely than White women who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between Black women and White women was less than 3 percentage points.
- API men who were diagnosed with rheumatoid arthritis were about as likely as White men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. Black and Hispanic men who were diagnosed with rheumatoid arthritis were less likely than White men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

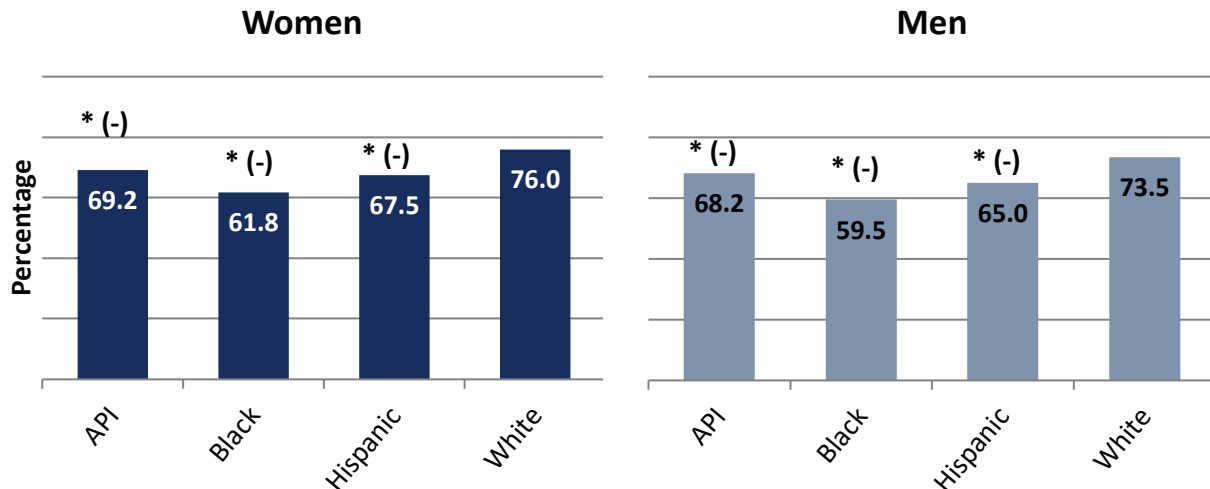
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Behavioral Health

### Antidepressant Medication Management—Acute Phase Treatment

Percentage of MA enrollees aged 18 years and older who were diagnosed with a new episode of major depression who were newly treated with antidepressant medication who remained on the medication for at least 84 days, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.

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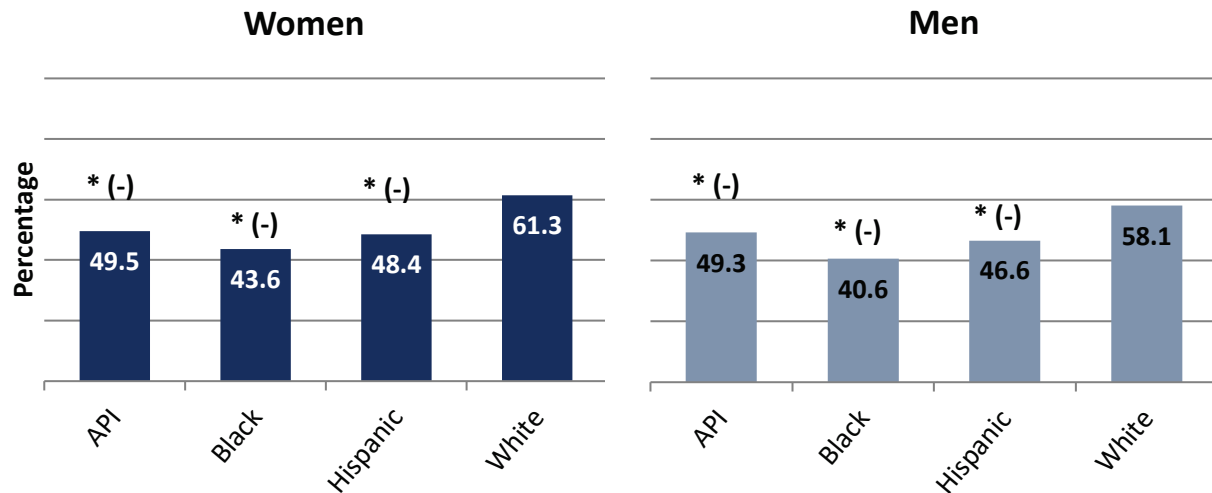
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Antidepressant Medication Management—Continuation Phase Treatment

Percentage of MA enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on antidepressant medication for at least 180 days, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have been treated with and to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have been treated with and to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.

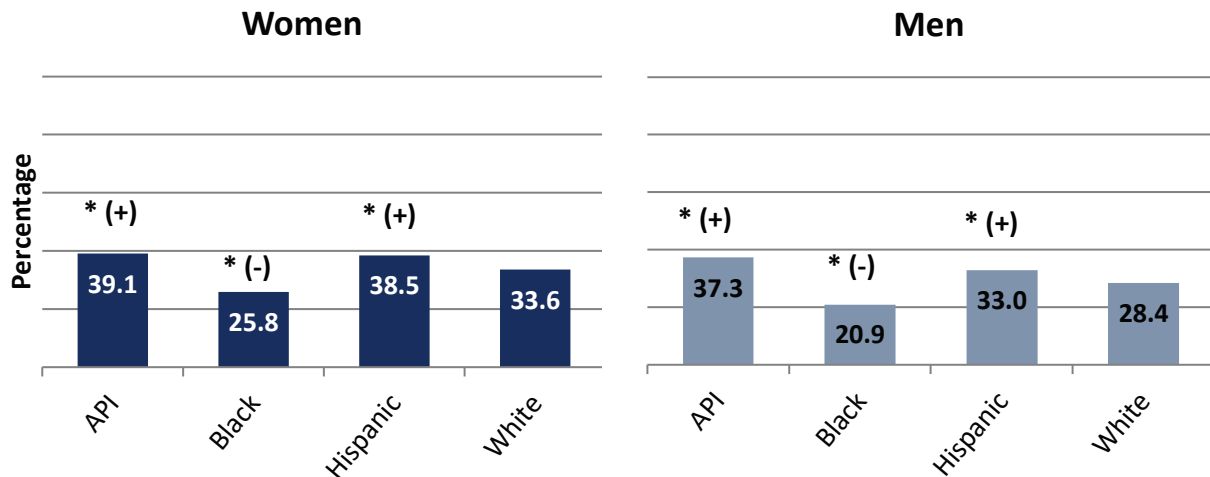
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Follow-up After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API and Hispanic women who were hospitalized for a mental health disorder were more likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. In each case, the difference was greater than 3 percentage points. Black women who were hospitalized for a mental health disorder were less likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between Black women and White women was greater than 3 percentage points.
- API and Hispanic men who were hospitalized for a mental health disorder were more likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. In each case, the difference was greater than 3 percentage points. Black men who were hospitalized for a mental health disorder were less likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

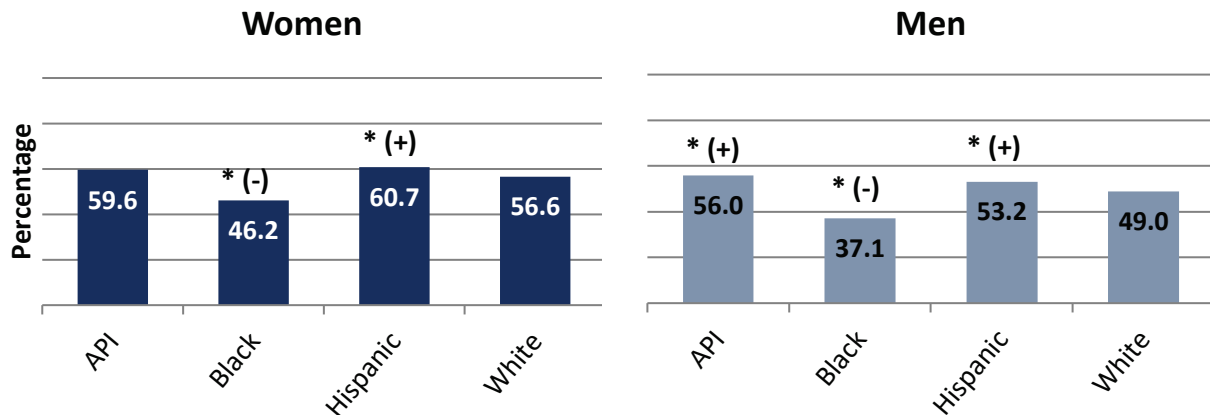
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

### Follow-up After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API women who were hospitalized for a mental health disorder were about as likely as White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. Black women who were hospitalized for a mental health disorder were less likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Black women and White women was greater than 3 percentage points. Hispanic women who were hospitalized for a mental health disorder were more likely than White women who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Hispanic women and White women was greater than 3 percentage points.
- API and Hispanic men who were hospitalized for a mental health disorder were more likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. In each case, the difference was greater than 3 percentage points. Black men who were hospitalized for a mental health disorder were less likely than White men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

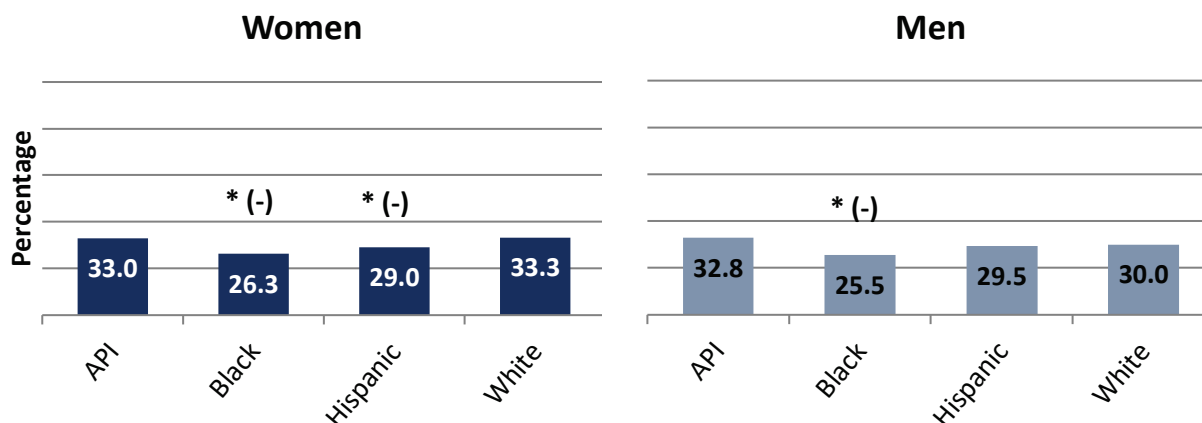
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.



## Follow-up After Emergency Department (ED) Visit for Mental Illness (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of the ED visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who had an ED visit for a mental health disorder were about as likely as White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. Black and Hispanic women who had an ED visit for a mental health disorder were less likely than White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API and Hispanic men who had an ED visit for a mental health disorder were about as likely as White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. Black men who had an ED visit for a mental health disorder were less likely than White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of the ED visit. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

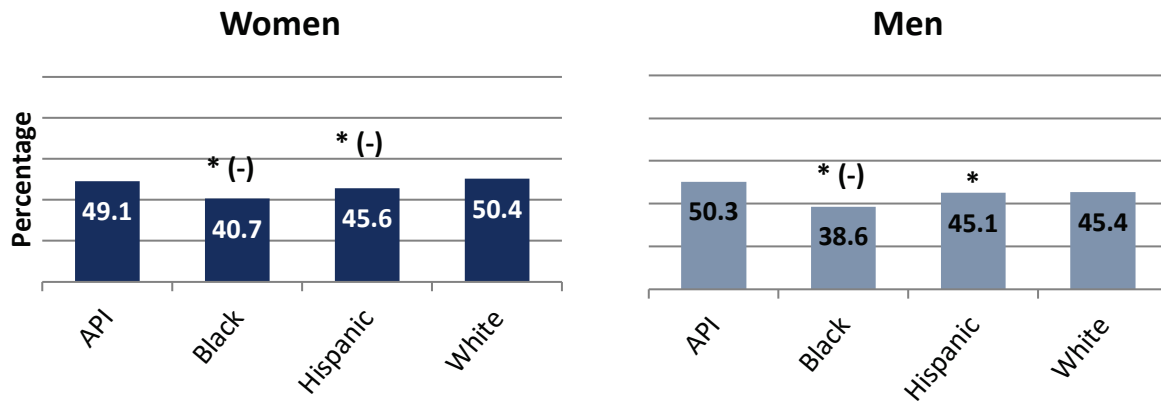
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Mental Illness (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of the ED visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who had an ED visit for a mental health disorder were about as likely as White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. Black and Hispanic women who had an ED visit for a mental health disorder were less likely than White women who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who had an ED visit for a mental health disorder were about as likely as White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. Black and Hispanic men who had an ED visit for a mental health disorder were less likely than White men who had an ED visit for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of the ED visit. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

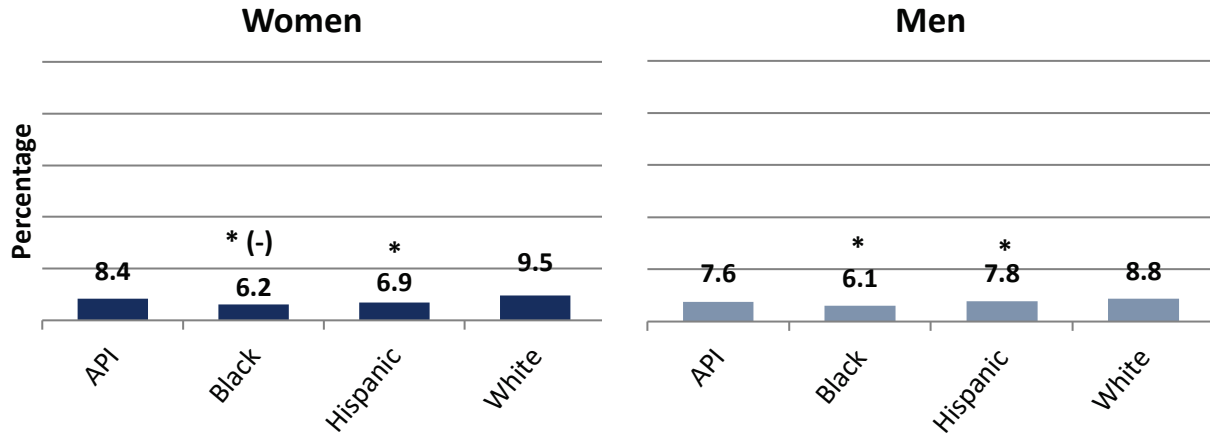
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within seven days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within seven days of the ED visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who had an ED visit for AOD abuse or dependence were about as likely as White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit. Black and Hispanic women who had an ED visit for AOD abuse or dependence were less likely than White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men who had an ED visit for AOD abuse or dependence were about as likely as White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit. Black and Hispanic men who had an ED visit for AOD abuse or dependence were less likely than White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within seven days of the ED visit. The difference between Black men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

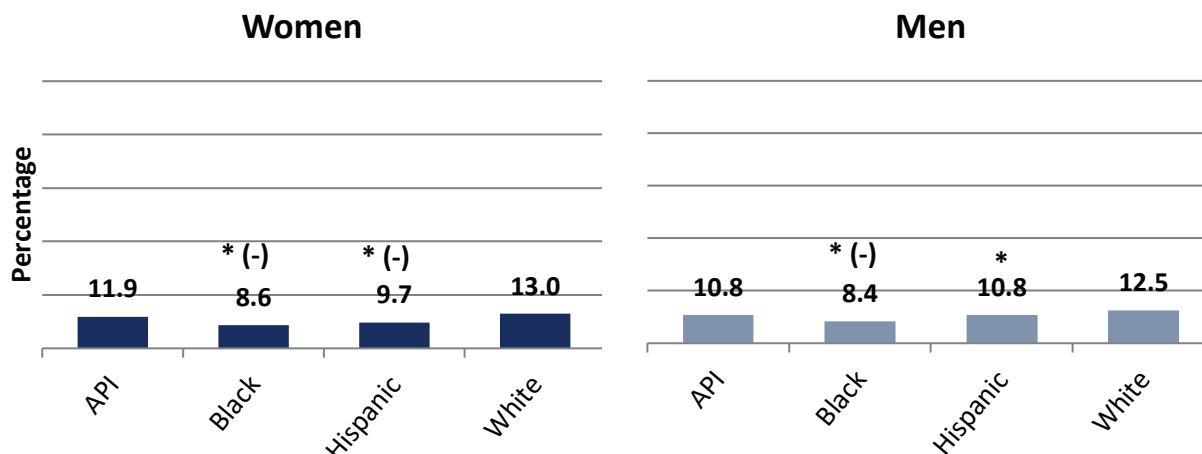
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Follow-up After Emergency Department (ED) Visit for Alcohol and Other Drug (AOD) Abuse or Dependence (within 30 days of discharge)

Percentage of MA enrollees aged 18 years and older<sup>†</sup> who had an ED visit for AOD abuse or dependence who had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who had an ED visit for AOD abuse or dependence were about as likely as White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. Black and Hispanic women who had an ED visit for AOD abuse or dependence were less likely than White women who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who had an ED visit for AOD abuse or dependence were about as likely as White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. Black and Hispanic men who had an ED visit for AOD abuse or dependence were less likely than White men who had an ED visit for AOD abuse or dependence to have had a follow-up visit for AOD abuse or dependence within 30 days of the ED visit. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

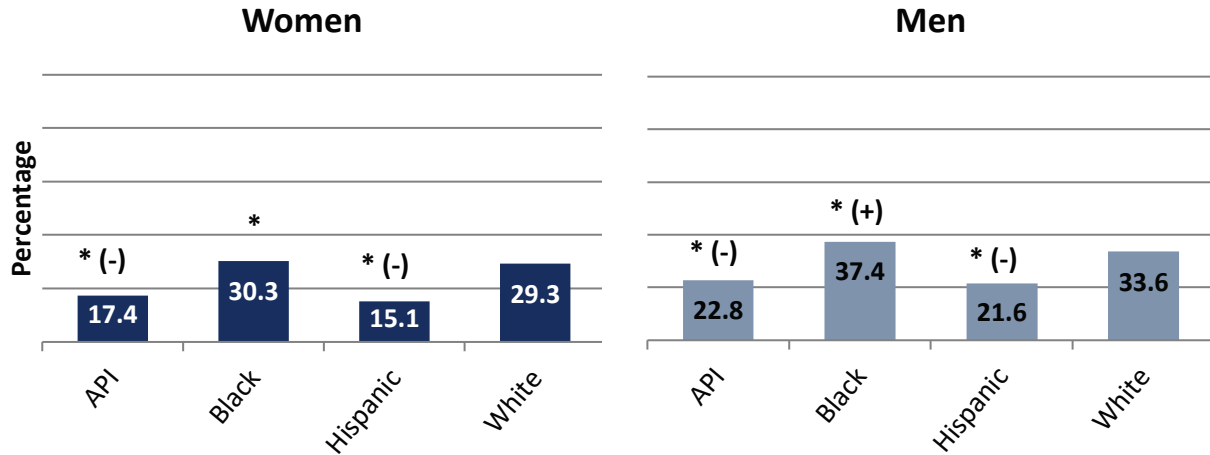
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.



## Initiation of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiate<sup>†</sup> treatment within 14 days of the diagnosis, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API and Hispanic women with a new episode of AOD dependence were less likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between API women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women. Black women with a new episode of AOD dependence were more likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with a new episode of AOD dependence were less likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. Black men with a new episode of AOD dependence were more likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

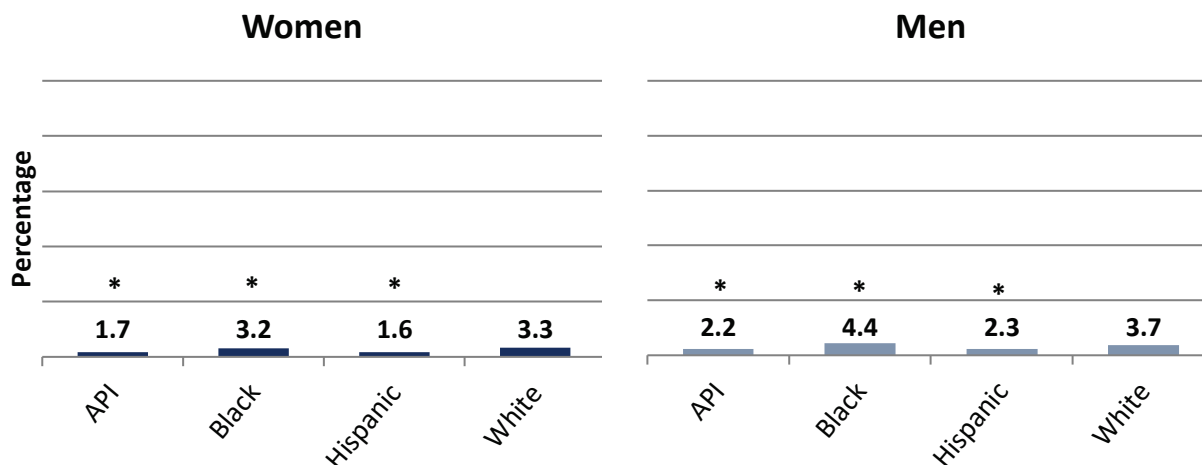
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Engagement of Alcohol and Other Drug Dependence Treatment

Percentage of MA enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or other drug (AOD) dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women with a new episode of AOD dependence who initiated treatment were less likely than White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. In each case, the difference was less than 3 percentage points.
- API and Hispanic men with a new episode of AOD dependence who initiated treatment were less likely than White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between API men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men. Black men with a new episode of AOD dependence who initiated treatment were more likely than White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of their initial visit for treatment. The difference between Black men and White men was less than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

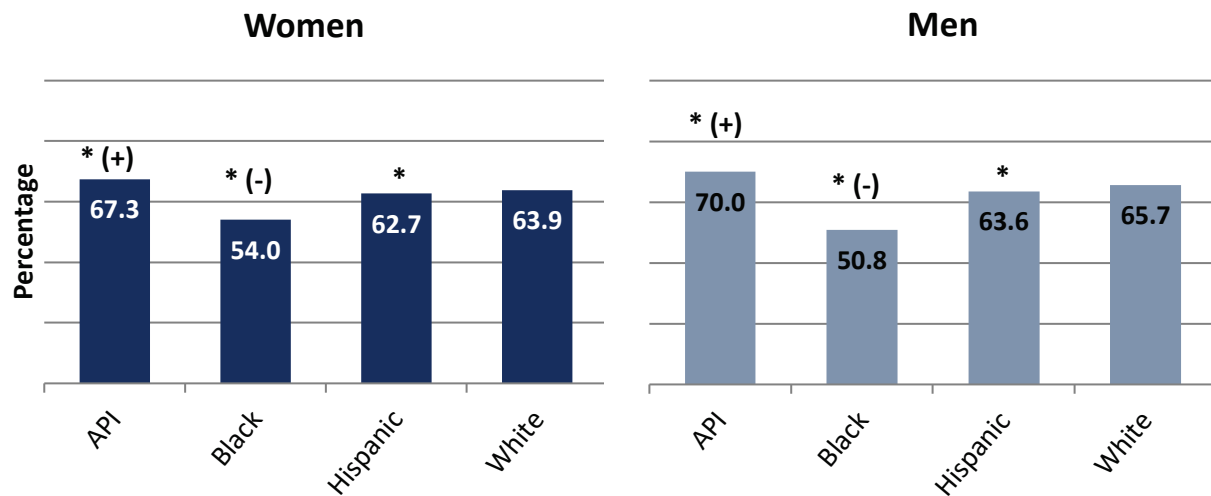
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Clinical Care: Medication Management and Care Coordination

### Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who had their medications reconciled within 30 days, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- API women who were discharged from an inpatient facility were more likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men who were discharged from an inpatient facility were more likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

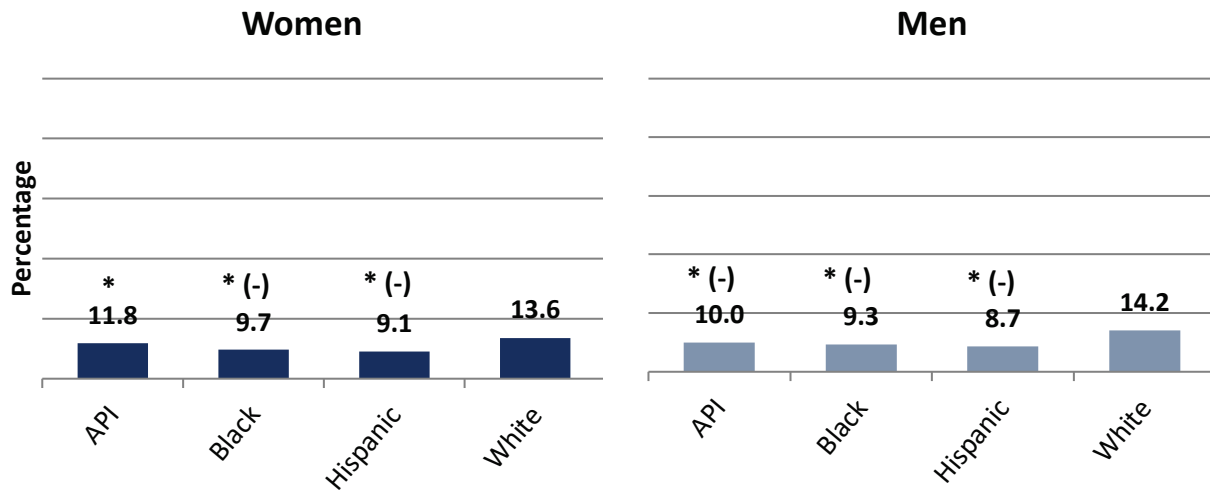
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Transitions of Care—Notification of Inpatient Admission

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility whose primary or ongoing care providers were notified of the inpatient admission on the day of or the day following admission, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- The primary or ongoing care providers of API, Black, and Hispanic women who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of White women who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. For API women, the difference was less than 3 percentage points. For Black and Hispanic women, the difference was greater than 3 percentage points.
- The primary or ongoing care providers of API, Black, and Hispanic men who were discharged from an inpatient facility were less likely than the primary or ongoing care providers of White men who were discharged from an inpatient facility to have been notified of the inpatient admission on the day of or the day following admission. In each case, the difference was greater than 3 percentage points.

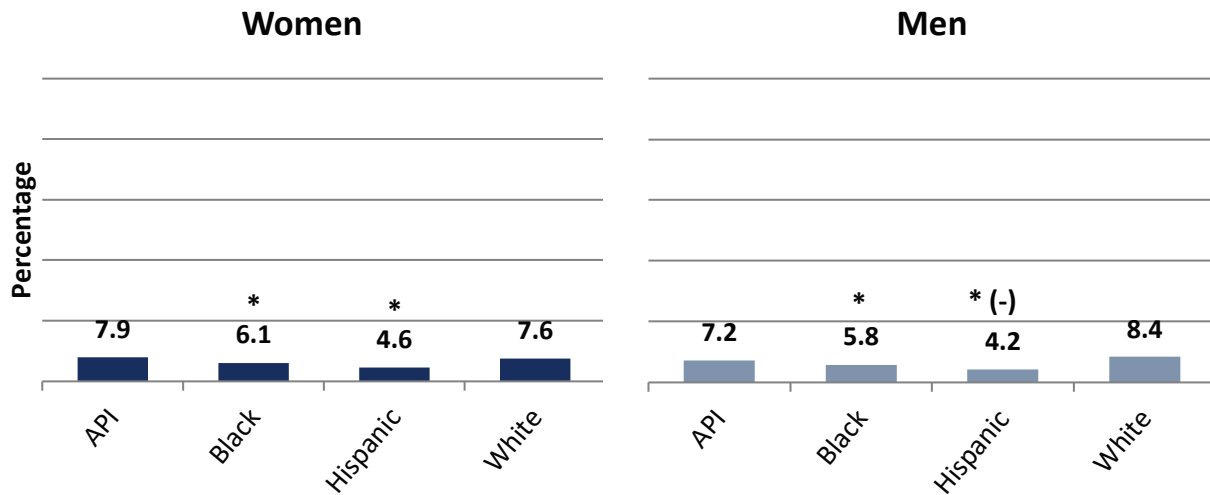
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Transitions of Care—Receipt of Discharge Information

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility who received discharge information on the day of or the day following discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who were discharged from an inpatient facility were about as likely as White women who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. Black and Hispanic women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- API men who were discharged from an inpatient facility were about as likely as White men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. Black and Hispanic men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have received discharge information on the day of or the day following discharge. The difference between Black men and White men was less than 3 percentage points. The difference between Hispanic men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

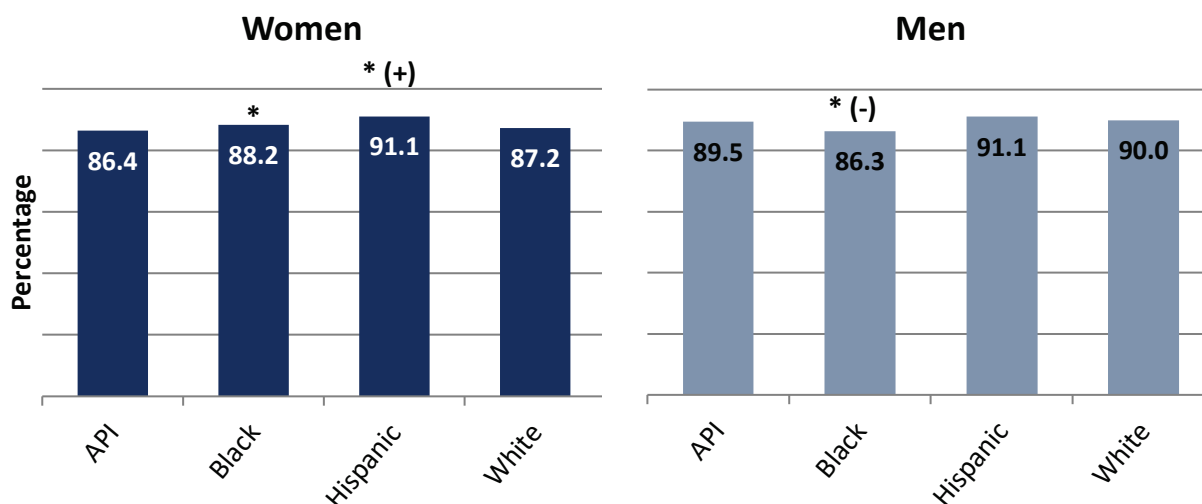
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:



- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Transitions of Care—Patient Engagement After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom patient engagement (office visit, home visit, telehealth) was provided within 30 days of discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women who were discharged from an inpatient facility were about as likely as White women who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. Black and Hispanic women who were discharged from an inpatient facility were more likely than White women who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points.
- API and Hispanic men who were discharged from an inpatient facility were about as likely as White men who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. Black men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had an office visit, to have had a home visit, or to have received telehealth services within 30 days of discharge. The difference between Black men and White men was greater than 3 percentage points.

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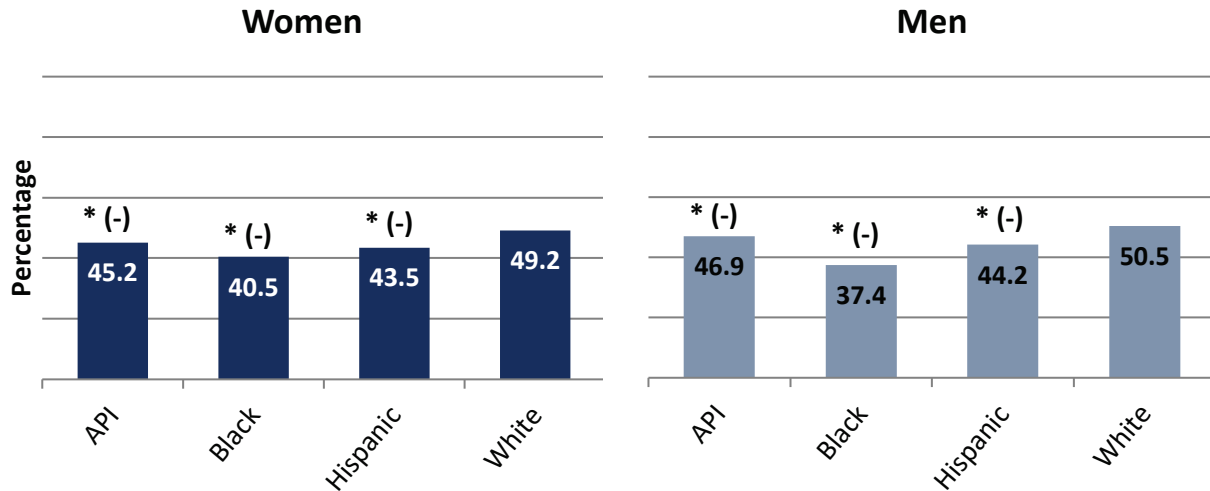
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Transitions of Care—Medication Reconciliation After Inpatient Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility for whom medications were reconciled within 30 days of discharge, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black, and Hispanic women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days of discharge. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days of discharge. In each case, the difference was greater than 3 percentage points.

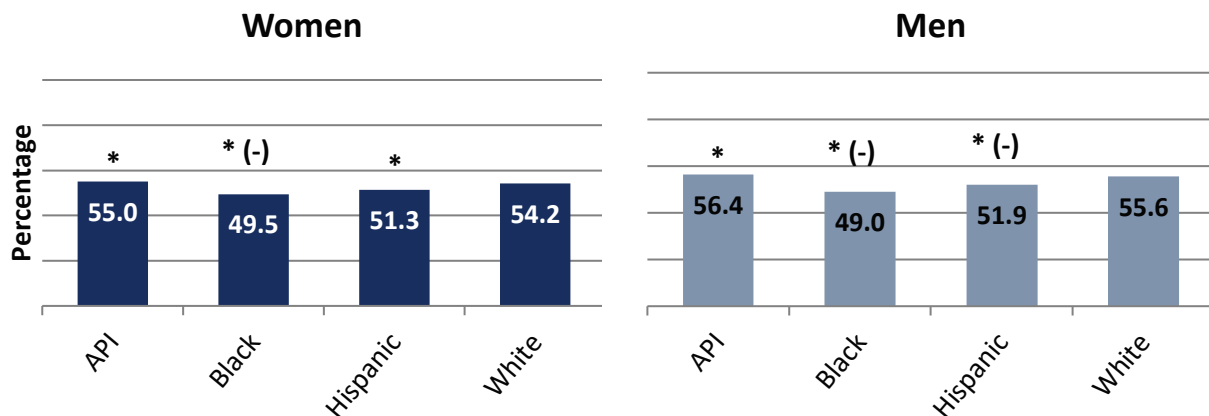
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Follow-up After Emergency Department (ED) Visit for People with High-Risk Multiple Chronic Conditions

Percentage of MA enrollees aged 18 years and older with multiple high-risk chronic conditions<sup>†</sup> who received follow-up care within seven days of an ED visit, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API women with multiple high-risk chronic conditions were more likely than White women with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between API women and White women was less than 3 percentage points. Black and Hispanic women with multiple high-risk chronic conditions were less likely than White women who were discharged from an inpatient facility to have received follow-up care within seven days of an ED visit. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men with multiple high-risk chronic conditions were more likely than White men with multiple high-risk chronic conditions to have received follow-up care within seven days of an ED visit. The difference between API men and White men was less than 3 percentage points. Black and Hispanic men with multiple high-risk chronic conditions were less likely than White men who were discharged from an inpatient facility to have received follow-up care within seven days of an ED visit. The difference between Black men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

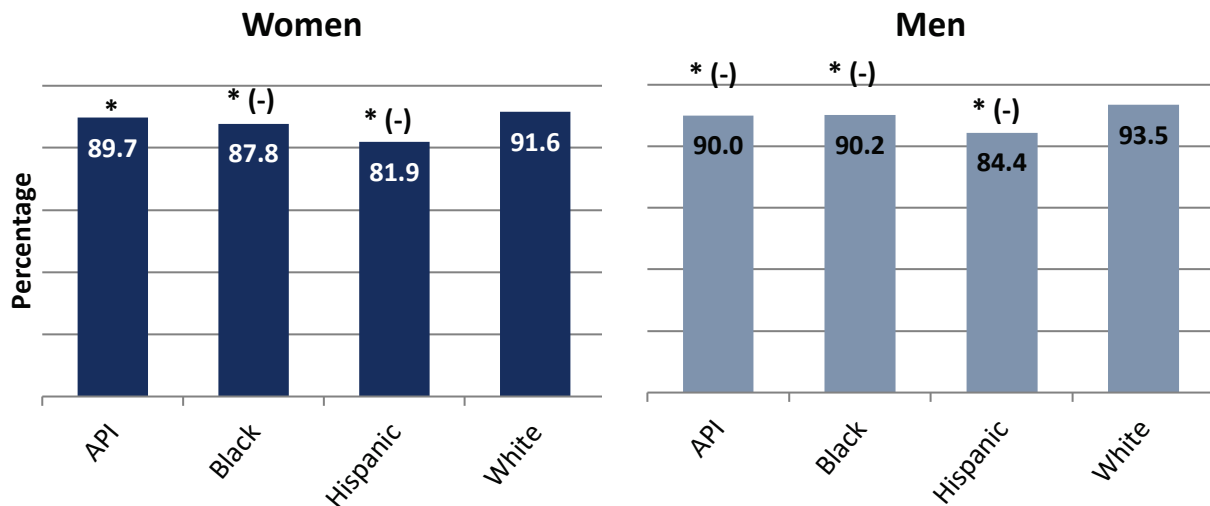
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Conditions include COPD and asthma, Alzheimer's disease and related disorders, chronic kidney disease, depression, heart failure, acute myocardial infarction, atrial fibrillation, and stroke and transient ischemic attack.

## Clinical Care: Overuse/Appropriateness

### Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of MA enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

#### Disparities

- Use of potentially harmful medication was avoided less often for elderly API, Black, and Hispanic women with chronic renal failure than for elderly White women with chronic renal failure. The difference between elderly API women and elderly White women was less than 3 percentage points. The difference between elderly Black women and elderly White women was greater than 3 percentage points, as was the difference between elderly Hispanic women and elderly White women.
- Use of potentially harmful medication was avoided less often for elderly API, Black, and Hispanic men with chronic renal failure than for elderly White men with chronic renal failure. In each case, the difference was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

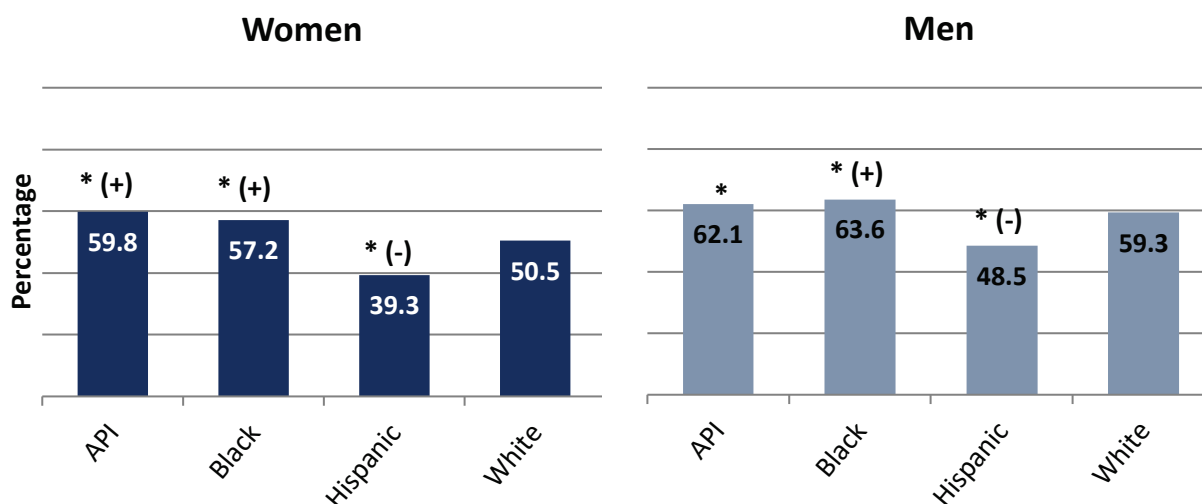
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> This includes cyclooxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.



## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API and elderly Black women with dementia than for elderly White women with dementia. The difference between elderly API women and elderly White women was greater than 3 percentage points, as was the difference between elderly Black women and elderly White women. Use of potentially harmful medication was avoided less often for elderly Hispanic women with dementia than for elderly White women with dementia. The difference between elderly Hispanic women and elderly White women was greater than 3 percentage points.
- Use of potentially harmful medication was avoided more often for elderly API and elderly Black men with dementia than for elderly White men with dementia. The difference between elderly API men and elderly White men was less than 3 percentage points. The difference between elderly Black men and elderly White men was greater than 3 percentage points. Use of potentially harmful medication was avoided less often for elderly Hispanic men with dementia than for elderly White men with dementia. The difference between elderly Hispanic men and elderly White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

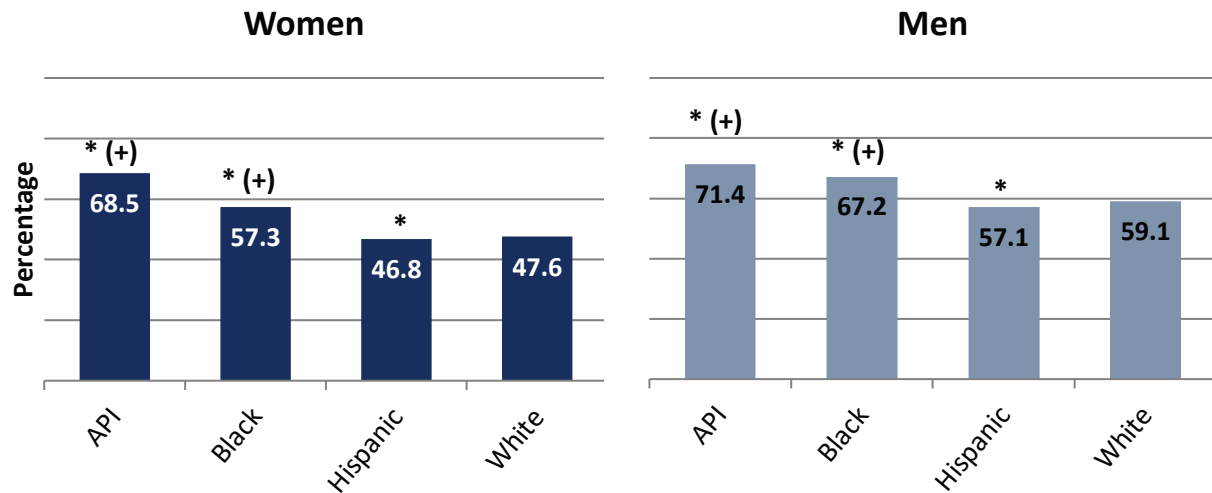
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of MA enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of potentially harmful medication was avoided more often for elderly API and elderly Black women with a history of falls than for elderly White women with a history of falls. The difference between elderly API women and elderly White women was greater than 3 percentage points, as was the difference between elderly Black women and elderly White women. Use of potentially harmful medication was avoided less often for elderly Hispanic women with a history of falls than for elderly White women with a history of falls. The difference between elderly Hispanic women and elderly White women was less than 3 percentage points.
- Use of potentially harmful medication was avoided more often for elderly API and elderly Black men with a history of falls than for elderly White men with a history of falls. The difference between elderly API men and elderly White men was greater than 3 percentage points, as was the difference between elderly Black men and elderly White men. Use of potentially harmful medication was avoided less often for elderly Hispanic men with a history of falls than for elderly White men with a history of falls. The difference between elderly Hispanic men and elderly White men was less than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

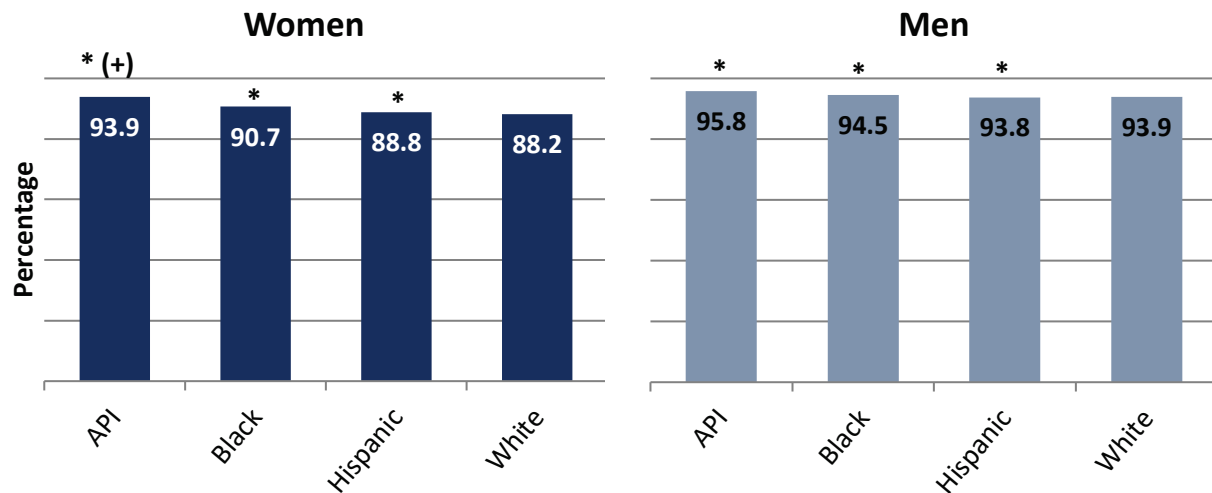
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Avoiding Use of High-Risk Medications in the Elderly

Percentage of MA enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of high-risk medication was avoided more often for API, Black, and Hispanic women than for White women. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- Use of high-risk medication was avoided more often for API and Black men than for White men. The difference between API men and White men was less than 3 percentage points, as was the difference between Black men and White men. Use of high-risk medication was avoided less often for Hispanic men than for White men. The difference between Hispanic men and White men was less than 3 percentage points.

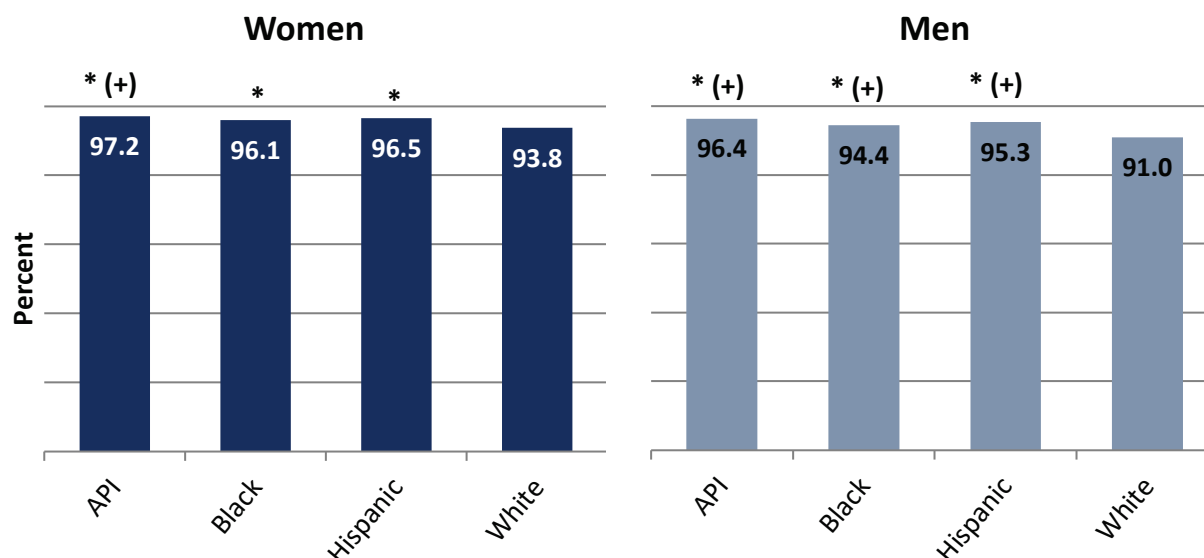
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Avoiding Use of Opioids at High Dosage

Percentage of MA enrollees aged 18 years and older who were not prescribed opioids at a high dosage<sup>†</sup> for more than 14 days, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids at a high dosage for more than 14 days was avoided more often for API, Black, and Hispanic women than for White women. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- Use of opioids at a high dosage for more than 14 days was avoided more often for API, Black, and Hispanic men than for White men. In each case, the difference was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

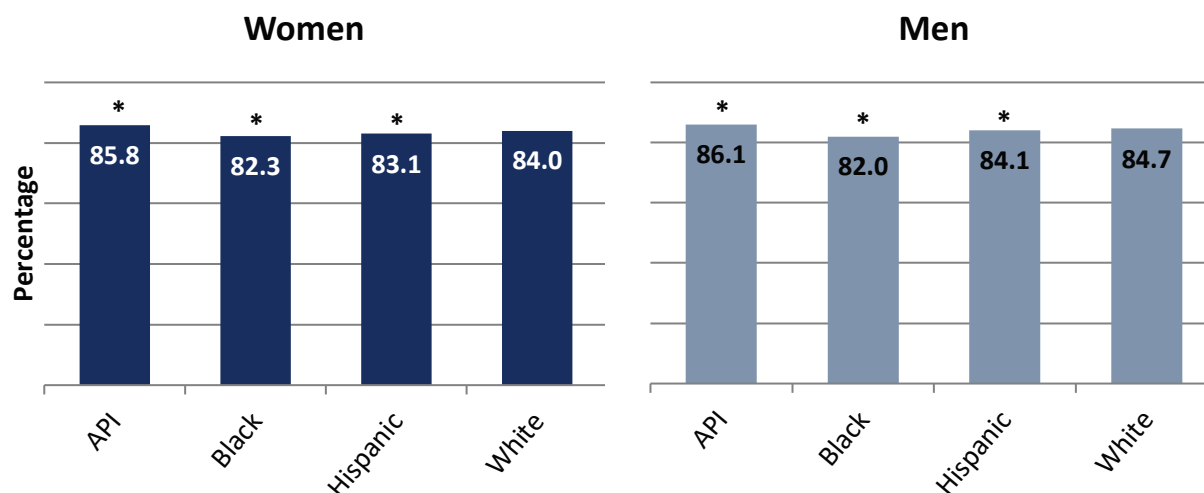
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

<sup>†</sup> Average morphine equivalent dose is greater than 120 mg.

## Avoiding Use of Opioids from Multiple Prescribers

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple prescribers was avoided more often for API women than for White women. The difference between API women and White women was less than 3 percentage points. Use of opioids from multiple prescribers was avoided less often for Black and Hispanic women than for White women. The difference between Black women and White women was less than 3 percentage points, as was the difference between Hispanic women and White women.
- Use of opioids from multiple prescribers was avoided more often for API men than for White men. The difference between API men and White men was less than 3 percentage points. Use of opioids from multiple prescribers was avoided less often for Black and Hispanic men than for White men. The difference between Black men and White men was less than 3 percentage points, as was the difference between Hispanic men and White men.

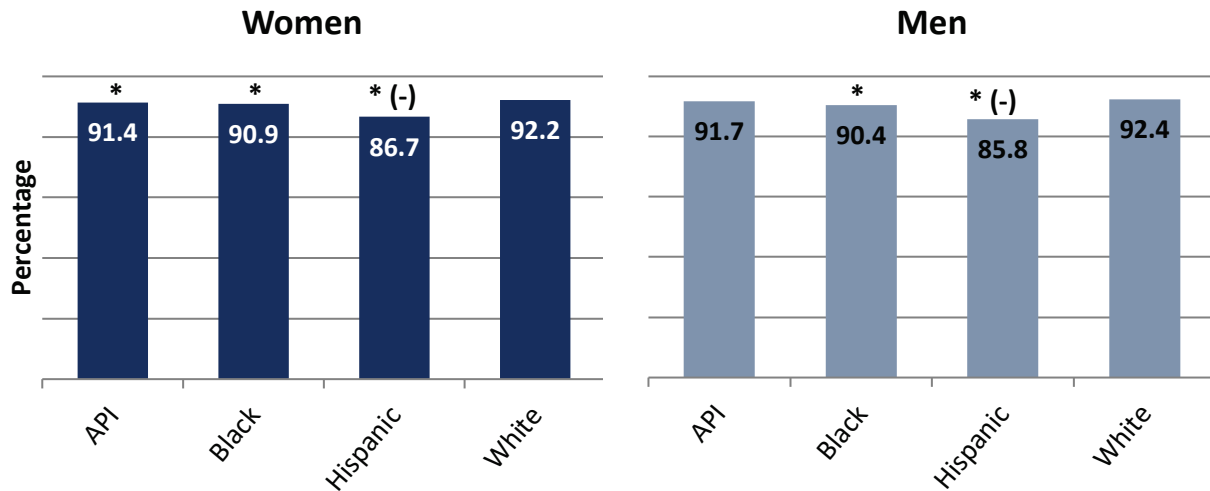
\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Avoiding Use of Opioids from Multiple Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more pharmacies in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple pharmacies was avoided less often for API, Black, and Hispanic women than for White women. The difference between API women and White women was less than 3 percentage points, as was the difference between Black women and White women. The difference between Hispanic women and White women was greater than 3 percentage points.
- Use of opioids from multiple pharmacies was avoided about as often for API men as for White men. Use of opioids from multiple pharmacies was avoided less often for Black and Hispanic men than for White men. The difference between Black men and White men was less than 3 percentage points. The difference between Hispanic men and White men was greater than 3 percentage points.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

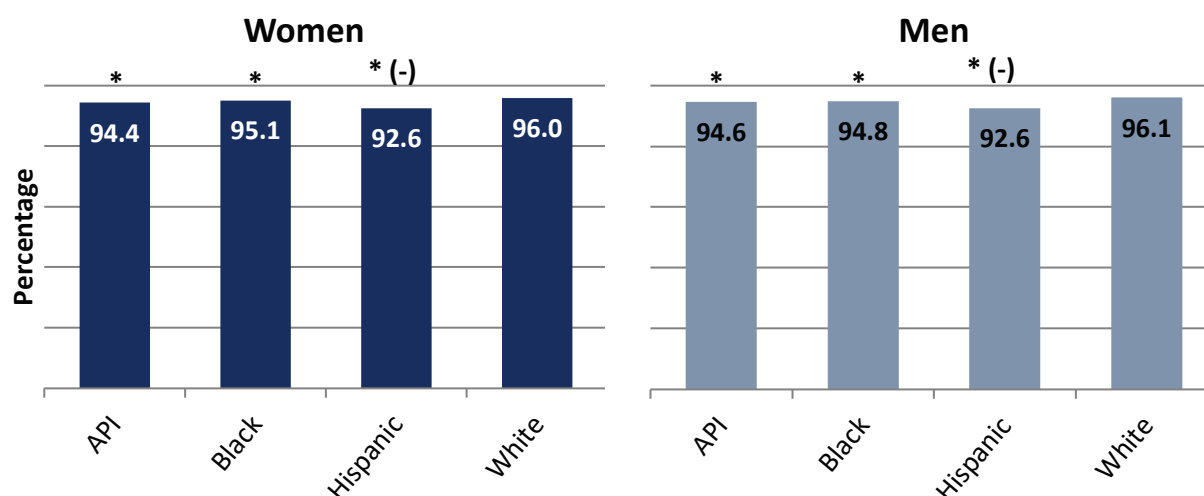
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.



## Avoiding Use of Opioids from Multiple Prescribers and Pharmacies

Percentage of MA enrollees aged 18 years and older who did not receive prescriptions for opioids from four or more prescribers and four or more pharmacies in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- Use of opioids from multiple prescribers and pharmacies was avoided less often for API, Black, and Hispanic women than for White women. The difference between API women and White women was less than 3 percentage points, as was the difference between Black women and White women. The difference between Hispanic women and White women was greater than 3 percentage points.
- Use of opioids from multiple prescribers and pharmacies was avoided less often for API, Black, and Hispanic men than for White men. The difference between API men and White men was less than 3 percentage points, as was the difference between Black men and White men. The difference between Hispanic men and White men was greater than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

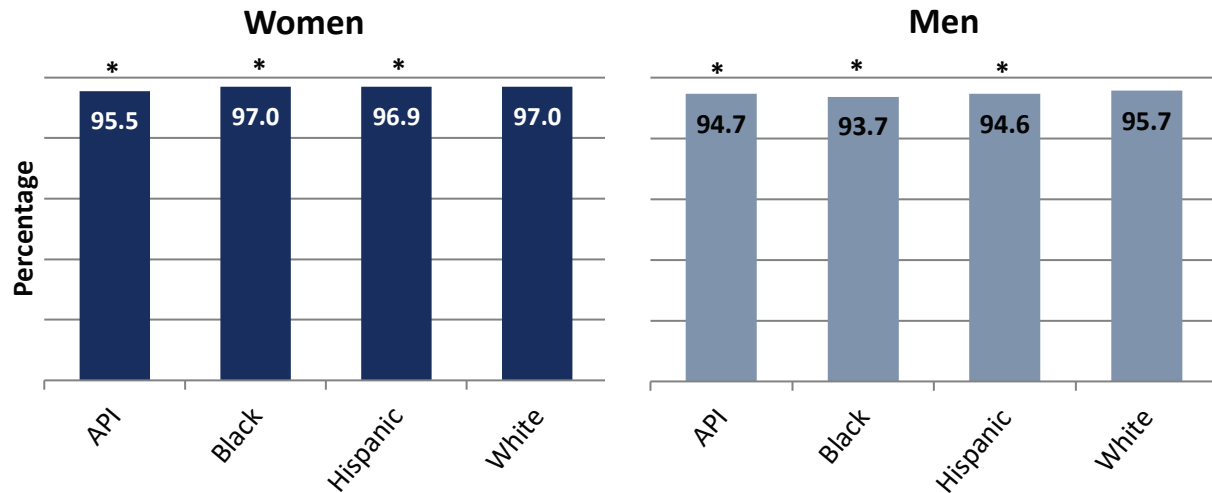
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Clinical Care: Access/Availability of Care

### Older Adults' Access to Preventive/Ambulatory Services

Percentage of MA enrollees aged 65 years and older who had an ambulatory or preventive care visit in the past year, by race and ethnicity within gender, 2018



**SOURCE:** Clinical quality data collected in 2018 from MA plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Those who endorsed Hispanic ethnicity were classified as Hispanic regardless of race.

### Disparities

- API, Black and Hispanic women were less likely than White women to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.
- API, Black and Hispanic men were less likely than White men to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

## Appendix: Data Sources and Methods

### *The Medicare Consumer Assessment of Healthcare Providers and Systems Survey*

The Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey consists of a set of mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with contracts serving as strata for Medicare Advantage (MA) beneficiaries and beneficiaries enrolled in prescription drug plans (PDPs) and states serving as strata for fee-for-service (FFS) beneficiaries not enrolled in a PDP. The 2018 survey attempted to contact 875,189 Medicare beneficiaries and received responses from 339,316, a 39 percent response rate. The 2018 surveys represent all FFS beneficiaries, MA beneficiaries from 434 MA contracts that either were required to report (minimum of 600 eligible enrollees) or reported voluntarily (450–599 enrollees), and PDP beneficiaries from 54 PDP contracts with at least 1,500 eligible enrollees. The data presented in this report pertain only to MA beneficiaries.

### *The Healthcare Effectiveness Data and Information Set*

The Healthcare Effectiveness Data and Information Set (HEDIS) consists of more than 90 measures across six domains of care (National Committee for Quality Assurance [NCQA], 2019). These domains include effectiveness of care, access/availability of care, experience of care, utilization and risk-adjusted utilization, relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of NCQA. Although CAHPS data are collected only via surveys, HEDIS data are gathered both via surveys and via medical charts and insurance claims for hospitalizations, medical office visits, and procedures. In selecting HEDIS measures to include in this report, we excluded measures that underwent a recent change in specification, were similar to reported measures preferred by the Centers for Medicare & Medicaid Services (CMS), or were deemed unsuitable for this application by CMS experts.

### *Information on Race and Ethnicity*

The 2018 CAHPS survey asked beneficiaries, “Are you of Hispanic or Latino origin or descent?” The response options were: “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asked, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into one of seven mutually exclusive categories: Hispanic, multiracial, American Indian or Alaska Native (AI/AN), Asian or Pacific Islander (API), Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: Those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their responses.
- Respondents without data regarding race and ethnicity were classified as unknown.
- Unknown cases were dropped from the analysis. The multiracial group was included in the analysis, but estimates for this group are not presented in this report.

- In prior versions of this report, we did not include estimates for AI/AN beneficiaries because there were too few AI/AN respondents to make accurate comparisons between this group and Whites when looking at women and men separately. For this year's report, there were sufficient data to report scores on all patient experience measures for both AI/AN women and AI/AN men.

HEDIS data, unlike CAHPS data, do not contain the patient's self-reported race and ethnicity. Therefore, we imputed race and ethnicity for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Martino et al., 2013). This methodology is recommended for estimating racial and ethnic disparities for Black, Hispanic, API, and White beneficiaries but not for AI/AN or multiracial beneficiaries. In 2018, there were 505 MA contracts that supplied the 16,182,931 HEDIS measure records used.

### *Information on Gender*

Information on the gender of MA beneficiaries is gathered from administrative records.

### *Analytic Approach*

The CAHPS measures presented in this report are composite measures that summarize, through averaging, the answers to two or more related CAHPS survey questions, or items. The annual flu vaccine measure is included in the CAHPS survey and is thus grouped with other CAHPS measures in this report. It is, however, considered to be a HEDIS measure. This is a single-item measure rather than a composite.

CAHPS estimates for different racial and ethnic groups are from case-mix-adjusted linear regression models that contained health contract intercepts, racial and ethnic indicators, and the following case-mix adjusters: age, education, self-reported health and mental health, dual eligibility/low-income subsidy, and proxy status. No adjustment was made for survey language. Race and ethnicity were coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White as the (omitted) reference group. CAHPS estimates for men and women are from case-mix-adjusted linear regression models that contained health contract intercepts, an indicator for female gender (with male as the reference group), and the same set of case-mix adjusters used in the racial and ethnic group models. CAHPS estimates for men and women of different racial and ethnic backgrounds are from case-mix-adjusted linear regression models, stratified by gender. These models contained health contract intercepts, racial and ethnic indicators, and the case-mix adjusters.

Predicted probabilities of race and ethnicity were used as weights to develop HEDIS measure estimates for each racial and ethnic group (Elliott et al., 2009). None of the HEDIS measures reported (including the annual flu vaccine measure) is case-mix adjusted.

Statistical significance tests were used to compare the model-estimated scores for each racial and ethnic minority group with the score for Whites and to compare the model-estimated scores for women and men. A difference in scores is denoted as statistically significant if there is less than a 5 percent chance that the difference could have resulted due to sampling error alone. Differences that are statistically significant and larger than 3 points on a 0–100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant. That is, in the charts that present national data on racial and ethnic and gender differences in patient experience (CAHPS) and clinical care (HEDIS), differences that are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013).

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## Disclaimer

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## Frequently Asked Questions

### Reporting of National Medicare Advantage Quality Scores by Race, Ethnicity, and Gender

#### 1. What is CMS announcing today?

CMS is announcing the release of a national-level report detailing the health care experiences and quality of care received by Medicare beneficiaries enrolled in Medicare Advantage (MA). The report looks at racial and ethnic differences in health care experiences and clinical care received in 2018, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately. The release of this report is traditionally timed to coincide with Minority Health Month in April. Each year at this time CMS will make additional reports available to the general public on the [CMS OMH](#) website.

#### 2. Why is CMS highlighting this information?

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes (*2018 National Healthcare Quality and Disparities Report* - <https://www.ahrq.gov/research/findings/nhqrdr/nhqrdr18/index.html>). To comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Additionally, the IMPACT Act of 2014 requires the HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE) to examine the differential effect of several demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures.

#### 3. What do these data represent?

The data presented in the report indicate overall differences in the care delivered to Medicare beneficiaries who identify as American Indian or Alaska Native, Asian or Pacific Islander, Black/African American, Hispanic, or White. The data also indicate overall differences in the quality of care for women and men as well as how racial and ethnic differences in the care delivered to Medicare beneficiaries vary for women and men.

#### 4. How can MA contracts use this information to improve performance?

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures aggregated at the national level, stratified by race and ethnicity, by gender, and by race and ethnicity within gender. This information may be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally appropriate quality improvement interventions and strategies.

#### 5. Are these results included in the MA and Part D Star Ratings Program?

NO. This effort is entirely separate from the MA and Part D Star Ratings program. These scores are intended to be used for health and drug plan quality improvement and accountability purposes.

**6. Do the data presented in this release suggest that CMS' Categorical Adjustment Index used to account for differences in performance among enrollees with low income subsidy and/or dual eligible and disability status in the Part C and D Star Ratings programs should be modified?**

NO. The descriptive data in this release do not suggest that use of the Categorical Adjustment Index in the Part C and D Star Ratings is inappropriate. The analyses released today examine racial, ethnic, and gender differences in CAHPS and HEDIS scores.

**7. Do these results affect MA contract payments?**

NO. These results are not used for payment purposes of any sort. As required by the IMPACT Act of 2014, the HHS ASPE has examined the differential effect of a number of demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures. Results from the ASPE Report to Congress on *Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs* can be found [here](#).

**8. How is gender reported?**

For both the patient experience (CAHPS) measures and the clinical care (HEDIS) measures, scores are reported for women and men.

**9. How is race and ethnicity reported?**

For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience (CAHPS) measures are provided for five racial and ethnic groups: (1) American Indians or Alaska Natives, (2) Asians or Pacific Islanders (including Native Hawaiians), (3) Blacks, (4) Hispanics, and (5) Whites. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care (HEDIS) measures are provided for the same groups except American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine if a beneficiary is in this group. For the racial and ethnic group comparisons within gender, scores on patient experience measures and clinical care measures are provided for all five racial and ethnic groups for women but are limited to Asians or Pacific Islanders, Blacks, Hispanics, and Whites for men. Scores on patient experience measures are not presented for American Indian or Alaska Native men because sample sizes for that group are insufficient for reliable reporting.

**10. If the score for a particular racial or ethnic minority group is lower than the score for Whites, what does that mean?**

At the national level, for patient experience measures, a lower score for a particular racial or ethnic minority group means that members of that group reported worse experiences than Whites (either overall or for a particular gender) after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure, are not adjusted for these other characteristics. At the national level, for clinical care measures, a lower score for a particular racial or ethnic minority group means that members of that group received worse care than Whites (either overall or for a particular gender).



April 2019



# Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage



Office of Minority Health  
in collaboration with the RAND Corporation





# Contents

Executive Summary .....	iv
Patient Experience Measures .....	viii
Racial and Ethnic Disparities in Care: All Patient Experience Measures .....	ix
Racial and Ethnic Disparities in Care: All Clinical Care Measures .....	x
Gender Disparities in Care: All Patient Experience and Clinical Care Measures .....	xi
Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures .....	xii
Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures .....	xiii
Background .....	1
Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage .....	5
Disparities in Care: All Patient Experience Measures .....	6
Patient Experience .....	8
Disparities in Care: All Clinical Care Measures .....	15
Clinical Care .....	18
Section II: Gender Disparities in Health Care in Medicare Advantage .....	51
Disparities in Care: All Patient Experience and Clinical Care Measures .....	52
Patient Experience .....	54
Clinical Care .....	61
Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage .....	90
Disparities in Care: All Patient Experience Measures .....	91
Patient Experience .....	93
Disparities in Care: All Clinical Care Measures .....	100
Clinical Care .....	104
Appendix: Data Sources and Methods .....	135
References .....	137



# **Executive Summary**

## **Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage**



This report describes quality of health care received in 2017 by Medicare beneficiaries enrolled in Medicare Advantage (MA) plans nationwide (30.6 percent of all Medicare beneficiaries). The report highlights racial and ethnic differences in health care experiences and clinical care, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately.

The report is based on an analysis of two sources of information. The first source is the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey, which is conducted annually by the Centers for Medicare & Medicaid Services (CMS) and focuses on experiences with the health and drug plans (e.g., ease of getting needed care, how well providers communicate, and getting needed prescription drugs) of Medicare beneficiaries across the nation. The second source of information is the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS collects information from medical records and administrative data on the technical quality of care that Medicare beneficiaries receive for a variety of medical issues, including diabetes, cardiovascular disease, and chronic lung disease. A comprehensive list of measures included in this report appears on p. viii. Scores on CAHPS measures are case-mix adjusted, as described in the appendix. HEDIS measures are not case-mix adjusted.

### ***Distribution of Race, Ethnicity, and Gender Among Medicare Advantage Beneficiaries***

In 2017, an estimated 69.5 percent of all MA beneficiaries were White, 13.8 percent were Hispanic, 9.9 percent were Black, 4.3 percent were Asians or Pacific Islanders (API), 2.1 percent were multiracial (not included in this report), and 0.4 percent were American Indians or Alaska Natives (AI/AN), compared with 76.1 percent, 8.5 percent, 8.9 percent, 3.6 percent, 2.3 percent, and 0.6 percent, respectively, in the general Medicare population. An estimated 56.3 percent of all Medicare Advantage beneficiaries were female and 43.7 percent were male, compared with 54.1 percent and 45.9 percent, respectively, in the general Medicare population.

### ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

With just one exception, MA beneficiaries in racial and ethnic minority groups reported experiences with care that were either worse than or similar to the experiences reported by White beneficiaries (see figure on p. ix). Compared with White beneficiaries, AI/AN beneficiaries reported worse<sup>1</sup> experiences on 1 measure and similar experiences on the other 6 measures. API beneficiaries reported worse experiences than Whites on 6 measures and better experiences on 1 measure. Black beneficiaries reported worse experiences than Whites on 2 measures and similar experiences on the other 5 measures. Likewise, Hispanic beneficiaries reported worse experiences than Whites on 2 measures and similar experiences on the other 5 measures.

Racial and ethnic disparities were more variable for the clinical care measures than for the patient experience measures (see figure on p. x). API beneficiaries received worse clinical care than Whites for 3 measures but received care of similar quality for 16 measures and better quality for 14 measures. Black beneficiaries received worse clinical care than Whites for 14 measures but received care of similar quality for 16 measures and better quality for 3 measures. Hispanic beneficiaries received worse clinical

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<sup>1</sup> Here, “worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold, as described in the appendix. “Similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both.

care than White beneficiaries for 13 of 33 measures but received care of similar quality for 14 measures and better quality for 6 measures.<sup>2</sup>

### ***Gender Disparities in Health Care in Medicare Advantage***

In general, the quality of care received by women and men was similar. Women and men reported similar experiences with care for all measures of patient experience (see figure on p. xi). Clinical care received by women and men was of similar quality for 23 of 29 measures.<sup>3</sup> For the 6 remaining measures, women received worse care than men for 4 measures and better care for 2 measures.

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Patterns of racial and ethnic differences in patient experience among women and among men parallel the differences that were observed among both groups combined (see figure on p. xii). Among both women and men, API beneficiaries reported worse experiences than White beneficiaries with getting needed care, getting appointments and care quickly, customer service, doctor communication, care coordination, and getting needed patient drugs and had higher rates of vaccination for the flu. Among both women and men, Black beneficiaries and Hispanic beneficiaries reported worse experiences than White beneficiaries with getting appointments and care quickly and had lower rates of vaccination for the flu. Otherwise, the experiences of Black beneficiaries and Hispanic beneficiaries were similar to those of Whites, regardless of gender.

Patterns of racial and ethnic differences in clinical care among women and men also parallel the differences observed among both groups combined (see figure on p. xiii). Among both women and men, API beneficiaries received worse clinical care than White beneficiaries for 4 of 31 measures; 3 of those 4 measures were the same for women and men. API women received better care than White women for 9 measures, whereas API men received better care than White men for 10 measures; of those 9 or 10 measures, 8 were the same for women and men. Black women received worse clinical care than White women for 14 measures. Black men received worse clinical care than White men for those same 14 measures plus an additional 3 measures. Among both men and women, Black beneficiaries received better clinical care than White beneficiaries for 3 measures; 2 of those 3 measures were the same for women and men. Among both women and men, Hispanic beneficiaries received worse clinical care than White beneficiaries for 11 measures; 9 of those 11 measures were the same for women and men. Hispanic men received better clinical care than White men for 4 measures. Hispanic women received better clinical care than White women on those same 4 measures plus an additional 2 measures.

### ***Conclusion***

The focus of this report is on racial, ethnic, and gender differences in quality of care that exist at the national level. Although this analysis revealed few gender differences in care, it did reveal patterns in which (1) Black and Hispanic beneficiaries received worse clinical care than White beneficiaries on a

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<sup>2</sup> For reporting HEDIS data stratified by race and ethnicity, racial and ethnic group membership is estimated using a methodology that combines information from CMS administrative data, surname, and residential location. Estimates of membership in the AI/AN group are less accurate than for other racial and ethnic groups; thus, this report does not show scores for AI/AN beneficiaries on the clinical care measures.

<sup>3</sup> Two clinical care measures, Breast Cancer Screening and Osteoporosis Management in Women Who Had a Fracture, pertained to women only and so were not eligible for stratified reporting by gender. Two other measures, Statin Use for Cardiovascular Disease and Medication Adherence for Cardiovascular Disease—Statins, were defined differently for men and women and so were also not eligible for stratified reporting by gender.

large portion of the clinical care measures examined and (2) API beneficiaries reported worse patient experiences than White beneficiaries on almost all measures of patient experience. The results presented in this report lead to a conclusion that quality improvement efforts should focus on enhancing clinical care for Black and Hispanic beneficiaries and investigating differences between API and White beneficiaries' patient experience. This information may be of interest to MA organizations and Medicare Part D sponsors as they consider strategies to improve the quality of care received by racial and ethnic minorities and reduce disparities.

## Patient Experience and Clinical Care Measures Included in This Report

### **Patient Experience Measures**

Getting Needed Care  
Getting Appointments and Care Quickly  
Customer Service  
Doctors Who Communicate Well  
Care Coordination  
Getting Needed Prescription Drugs  
Annual Flu Vaccine

### **Clinical Care Measures**

Colorectal Cancer Screening  
Breast Cancer Screening\*  
Diabetes Care—Blood Sugar Testing  
Diabetes Care—Eye Exam  
Diabetes Care—Kidney Disease Monitoring  
Diabetes Care—Blood Pressure Controlled  
Diabetes Care—Blood Sugar Controlled  
Statin Use in Patients with Diabetes  
Medication Adherence for Diabetes—Statins  
Adult Body Mass Index (BMI) Assessment  
Controlling High Blood Pressure  
Statin Use in Patients with Cardiovascular Disease†  
Medication Adherence for Cardiovascular Disease—Statins†  
Persistence of Beta-Blocker Treatment  
Asthma Medication Ratio in Older Adults  
Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)  
Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid  
Pharmacotherapy Management of COPD Exacerbation—Bronchodilator  
Rheumatoid Arthritis Management

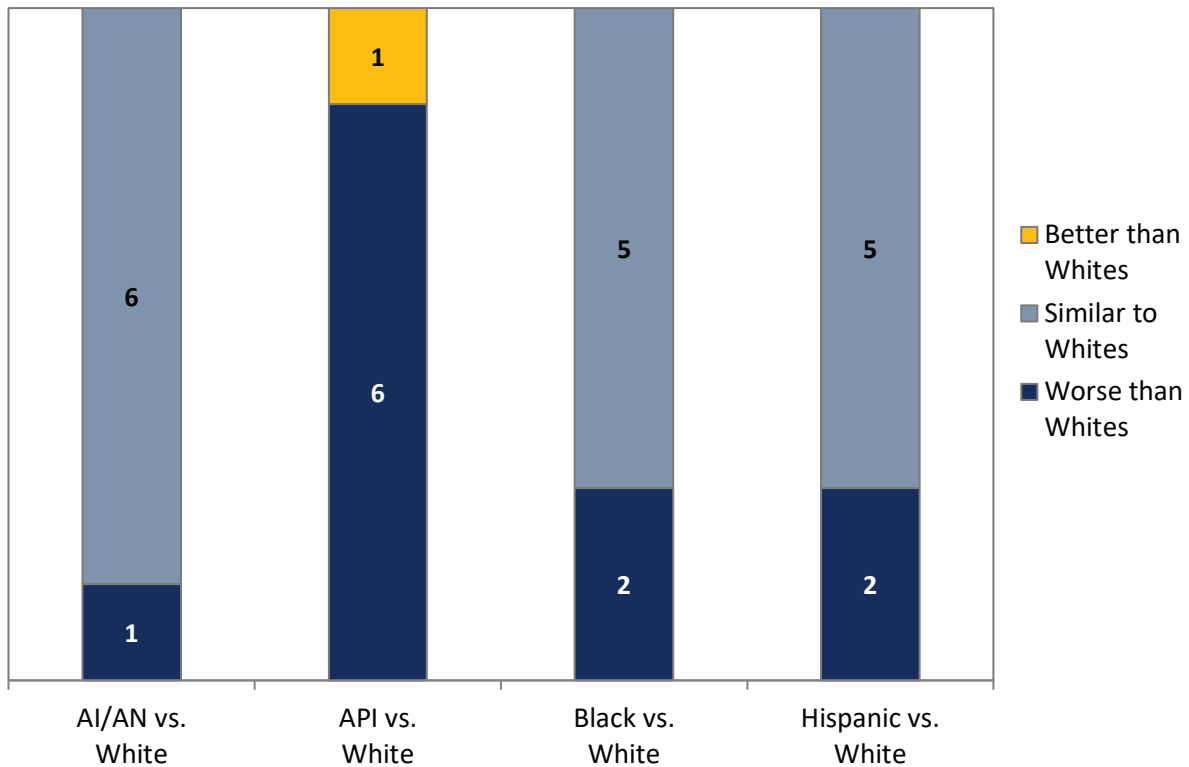
Osteoporosis Management in Women who Had a Fracture\*  
Appropriate Monitoring of Patients Taking Long-Term Medications  
Avoiding Use of High-Risk Medications in the Elderly  
Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure  
Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia  
Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls  
Older Adults' Access to Preventive/Ambulatory Services  
Medication Reconciliation After Hospital Discharge  
Antidepressant Medication Management—Acute Phase Treatment  
Antidepressant Medication Management—Continuation Phase Treatment  
Follow-Up Visit After Hospital Stay for Mental Illness (within 7 days of discharge)  
Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)  
Initiation of Alcohol or Other Drug Treatment  
Engagement of Alcohol or Other Drug Treatment

\* These measures are specific to women and are thus not included in the set of comparisons by gender.

† These measures are defined differently for men and women and thus are not included in the set of comparisons by gender. They are, however, included in the set of comparisons by race and ethnicity within gender.

## Racial and Ethnic Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2017



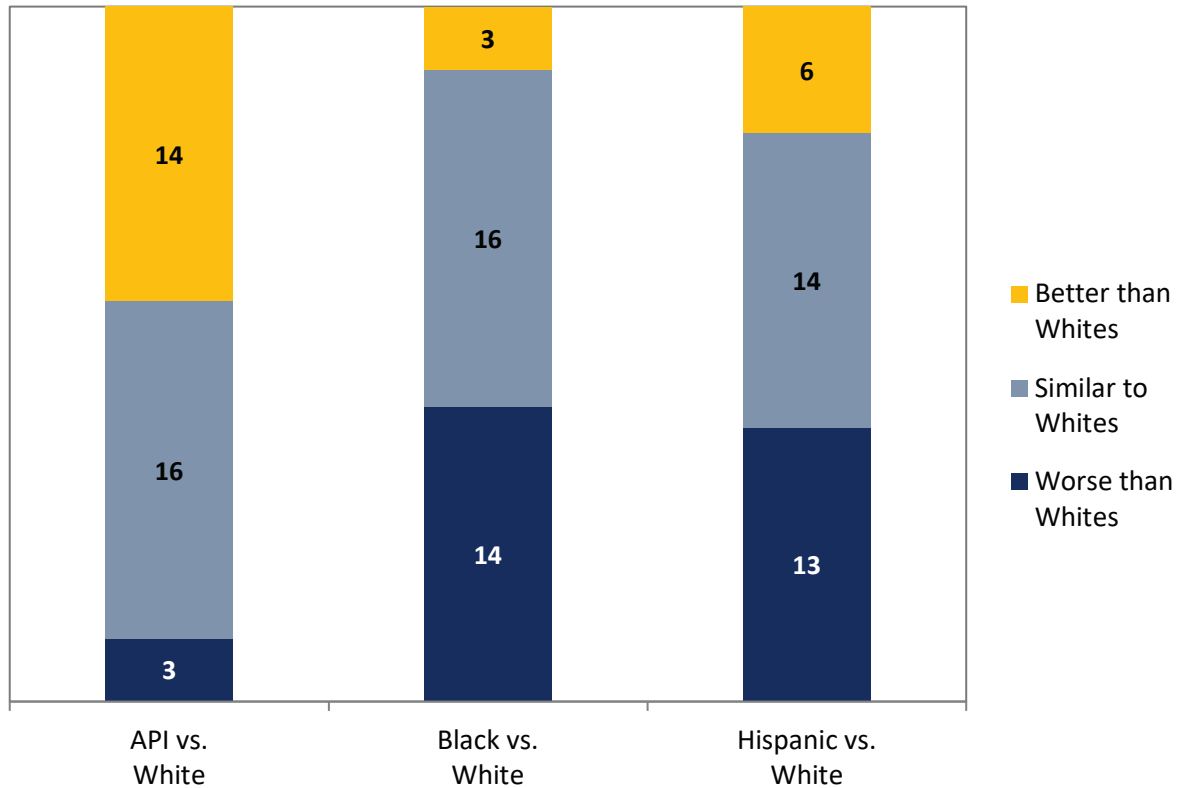
**SOURCE:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.



## Racial and Ethnic Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 33) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2017

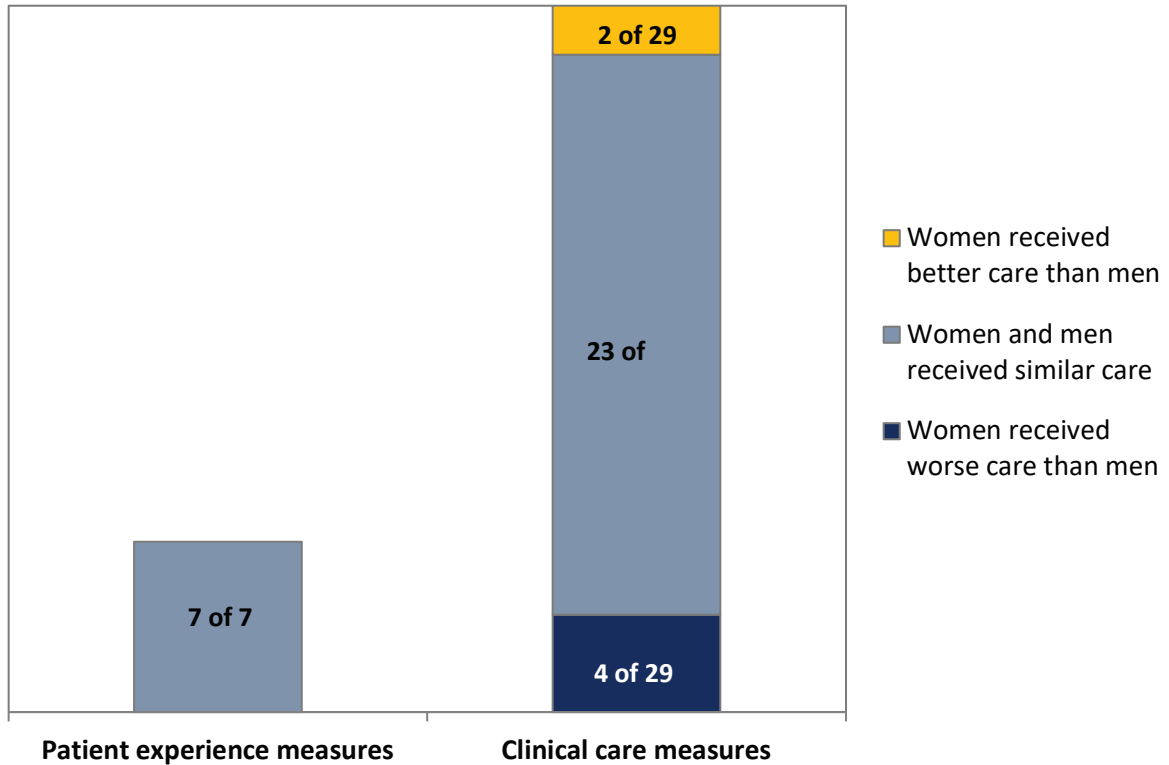


**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

## Gender Disparities in Care: All Patient Experience and Clinical Care Measures

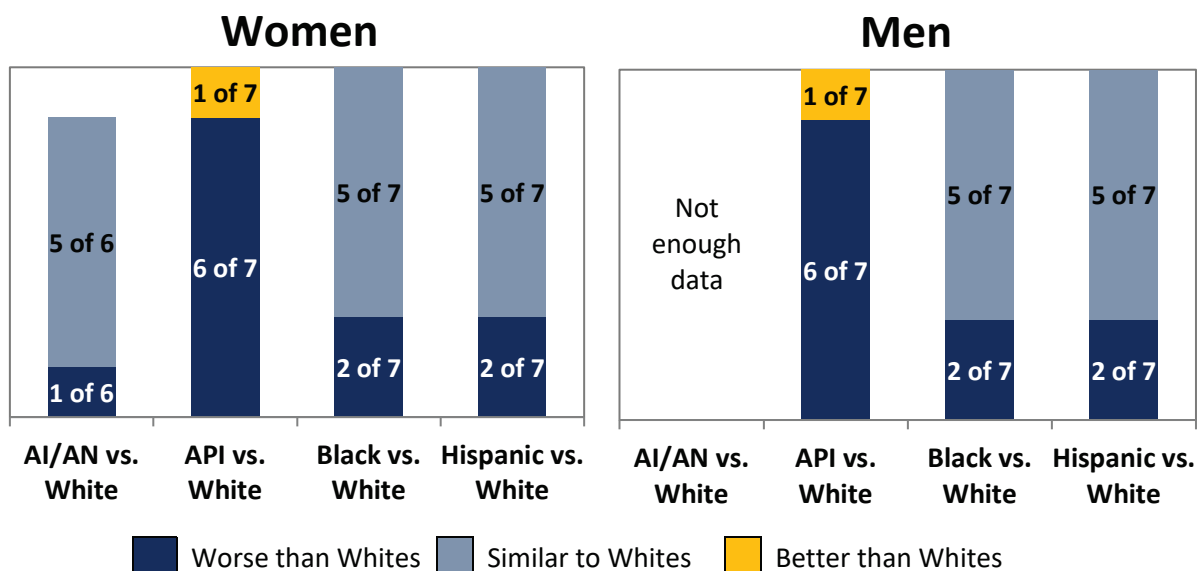
Number of patient experience measures (out of 7) and clinical care measures (out of 29) for which women received care that was worse than, similar to, or better than the care received by men in 2017



**SOURCES:** The bar on the left (patient experience measures) summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

## Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures

Number of patient experience measures (out of 7) for which women/men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women/men in 2017

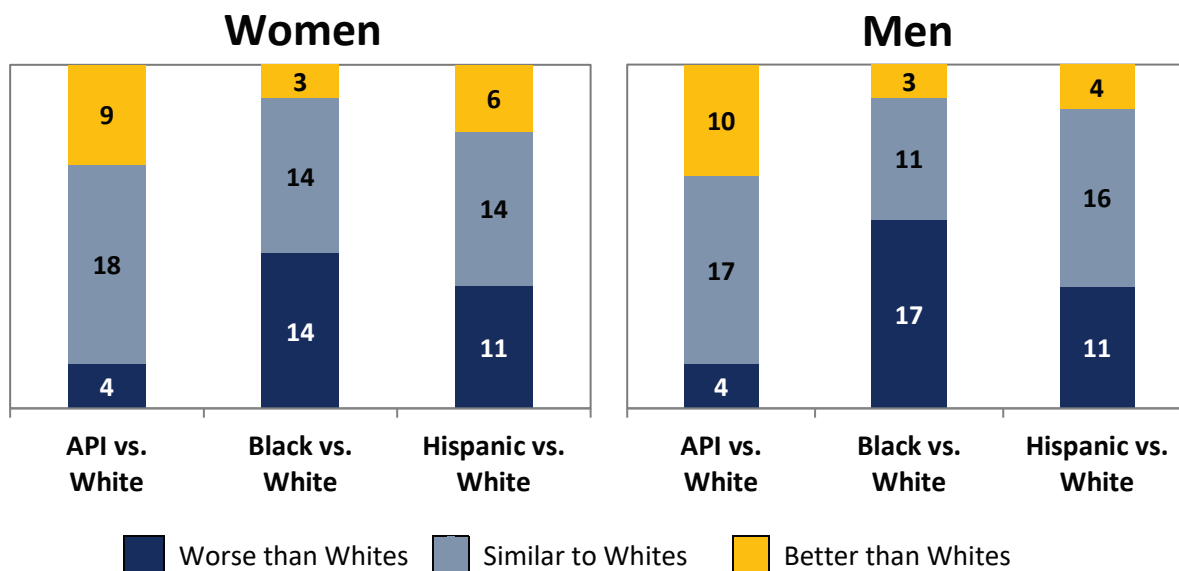


**SOURCE:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races. There were not enough data from AI/AN men to compare their patient experiences to those of White men. For one patient experience measure, there were not enough data from AI/AN women to permit a comparison to White women.

## Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures

Number of clinical care measures (out of 31) for which women/men of selected racial and ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2017



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

# Background

## Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage

## Overview

This report presents summary information on the quality of health care received in 2017 by Medicare beneficiaries enrolled in Medicare Advantage (MA) plans nationwide. In 2017, 30.6 percent of Medicare beneficiaries were enrolled in MA. Two types of quality of care data are presented in this report: measures of patient experience, which describe how well the care patients receive meets their needs for such things as timely appointments, respectful care, clear communication, and access to information; and measures of clinical care, which describe the extent to which patients receive appropriate screening and treatment for specific health conditions. The Institute of Medicine has identified the equitable delivery of care as a hallmark of quality.<sup>4</sup> Assessing equitability in the delivery of care requires making comparisons of quality by personal characteristics of patients, such as gender, race, and ethnicity. Three sets of such comparisons are presented in this report. In the first set, quality of care for racial and ethnic minority groups is compared with quality of care for Whites. In the second, quality of care for women is compared with quality of care for men. In the third, quality of care for racial and ethnic minority groups is compared with quality of care for Whites of the same gender. As in the 2018 report, this information—which may be of interest to Medicare beneficiaries, MA organizations, and Part D sponsors—is being presented in a single report to provide a more comprehensive understanding of the ways in which care differs by race and ethnicity, gender, and the intersection of these two characteristics. The focus of this report is on differences that exist at the national level. Interested readers can find information about health care quality for specific Medicare plans at <https://www.medicare.gov/find-a-plan/questions/home.aspx> and information about racial and ethnic differences in health care quality within Medicare plans at <https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/statistics-and-data/stratified-reporting.html>.

## Data Sources

In all, this report provides data regarding 7 patient experience measures and 33 clinical care measures. The patient experience data were collected from a national survey of Medicare beneficiaries, known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this report are from the 2017 Medicare CAHPS survey (detailed information about this survey can be found at <http://www.cms.gov/Research-Statistics-Data-and-Systems/Research/CAHPS/mcahps.html>). Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get the prescription drugs they need.

The clinical care data were gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from MA plans nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS; detailed information about these data can be found at <https://www.ncqa.org/hedis/measures/>). Examples of clinical care measures include whether beneficiaries received appropriate screening for colon cancer, whether beneficiaries with diabetes received a test that determines whether their blood sugar is under control, and whether appropriate treatment was provided to beneficiaries with chronic obstructive pulmonary disease (COPD). Two of the clinical care measures presented in this report, one pertaining to breast cancer screening and the other to management of osteoporosis, are specific to women. Thus, the set of comparisons by gender and the set of comparisons by race and ethnicity within gender exclude these two measures. Two other clinical care measures, both dealing with statin therapy for patients with

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<sup>4</sup> Institute of Medicine, *Crossing the Quality Chasm: A New Health System for the 21st Century*, Washington, D.C.: National Academy Press, 2001.

cardiovascular disease, are defined differently for men and women and thus are excluded from the set of comparisons by gender. The HEDIS data reported here were collected in 2017. Whereas all patient experience measures are applicable to beneficiaries aged 18 years and older, certain HEDIS measures apply to beneficiaries in a more limited age range, as noted throughout the report.

In 2017, an estimated 69.5 percent of all Medicare Advantage beneficiaries were White, 13.8 percent were Hispanic, 9.9 percent were Black, 4.3 percent were Asians or Pacific Islanders, 2.1 percent were multiracial, and 0.4 percent were American Indians or Alaska Natives, compared with 76.1 percent, 8.5 percent, 8.9 percent, 3.6 percent, 2.3 percent, and 0.6 percent, respectively, in the general Medicare population. An estimated 56.3 percent of all Medicare Advantage beneficiaries were female and 43.7 percent were male, compared with 54.1 percent and 45.9 percent, respectively, in the general Medicare population. For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience measures are provided for all racial and ethnic groups except multiracial. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care measures are provided for the same groups except for American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine whether a beneficiary is in this group. In previous versions of this report, patient experience scores for American Indians or Alaska Natives were excluded from the racial and ethnic group comparisons within gender because sample sizes were insufficient for reliable reporting. For this version of the report, there were enough data to report patient experience scores for American Indian or Alaska Native women but not enough to report patient experience scores for American Indian or Alaska Native men.

### ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

Section I of the report begins with a stacked bar chart showing the number of patient experience measures (out of 7) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites.<sup>5</sup> Following this stacked bar chart are separate, unstacked bar charts for each patient experience measure. These charts show the average score for each racial and ethnic group on a 0–100 scale. The average score represents the percentage of the best possible score for a given demographic group for that measure. For example, consider a measure for which the best possible score is 4 and the worst possible score is 1. If a given group's score on that measure is 3.5, then that group's score on a 0–100 scale is  $((3.5-1)/(4-1))*100 = 83.3$ . After the patient experience measures, Section I presents a stacked bar chart showing the number of clinical care measures (out of 33) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following this stacked bar chart are separate, unstacked bar charts for each clinical care measure that show the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure (e.g., a test or treatment).

### ***Gender Disparities in Health Care in Medicare Advantage***

Section II of the report begins with a pair of stacked bar charts that show the number of patient experience measures (out of 7) and the number of clinical care measures (out of 29) for which women received care that was worse than, similar to, or better than the care received by men. Gender data for

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<sup>5</sup> Here, “similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both, as described in the appendix. “Worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold.

each of the patient experience and clinical care measures are then presented in the form of unstacked bar charts.

***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Section III of the report begins with a pair of stacked bar charts that show, separately for women and men, the number of patient experience measures (out of 7) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. Following these stacked bar charts are separate, unstacked bar charts for each patient experience measure. These charts show, separately for men and women, the average score for each racial and ethnic group on a 0–100 scale. After the patient experience measures, Section III presents a pair of stacked bar charts that show, separately for men and women, the number of clinical care measures (out of 31) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following these stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for men and women, the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure.

For detailed information on data sources and analytic methods, see the appendix.



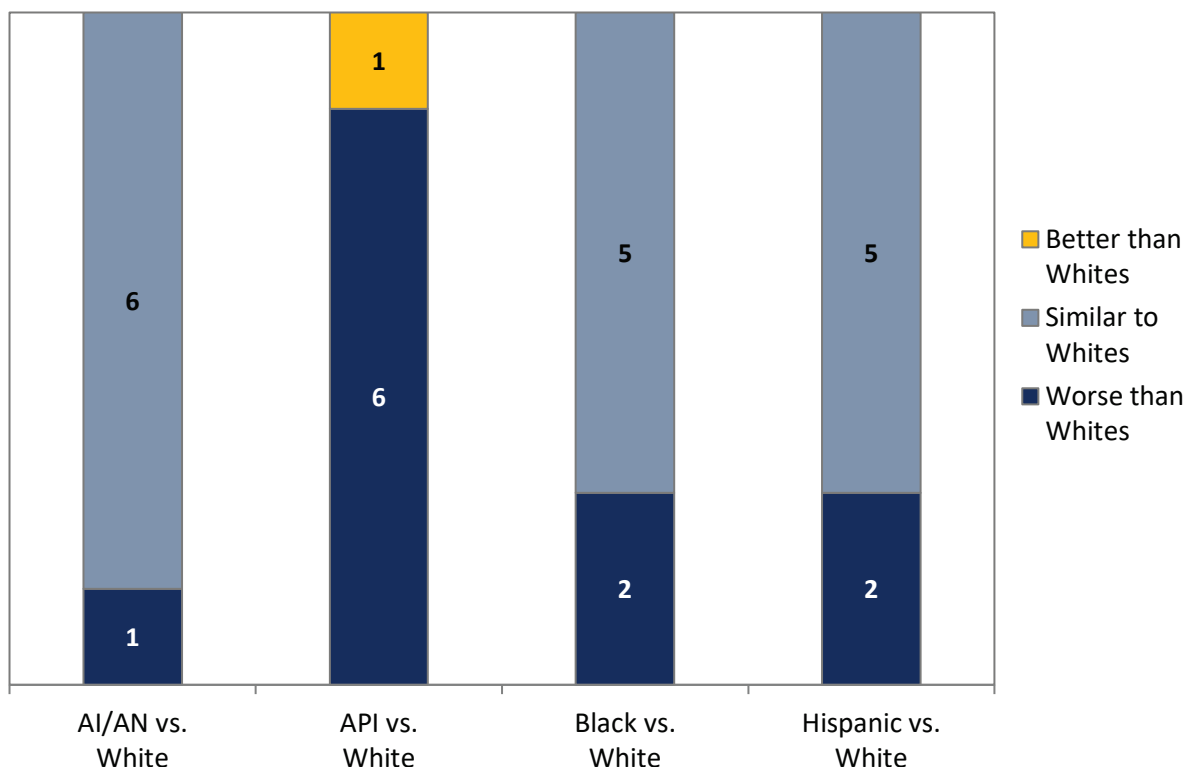


# **Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage**



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2017



**SOURCE:** This chart summarizes data from all MA beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (C. A. Paddison, M. N. Elliott, A. M. Haviland, D. O. Farley, G. Lyratzopoulos, K. Hambarsoomian, J. W. Dembosky, and M. O. Roland, "Experiences of Care Among Medicare Beneficiaries with ESRD: Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey Results," *American Journal of Kidney Diseases*, Vol. 61, 2013, pp. 440–449).

**AI/AN beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly

**API beneficiaries received worse care than White beneficiaries**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API beneficiaries received better care than White beneficiaries**

- Annual flu vaccine

**Black beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Annual flu vaccine

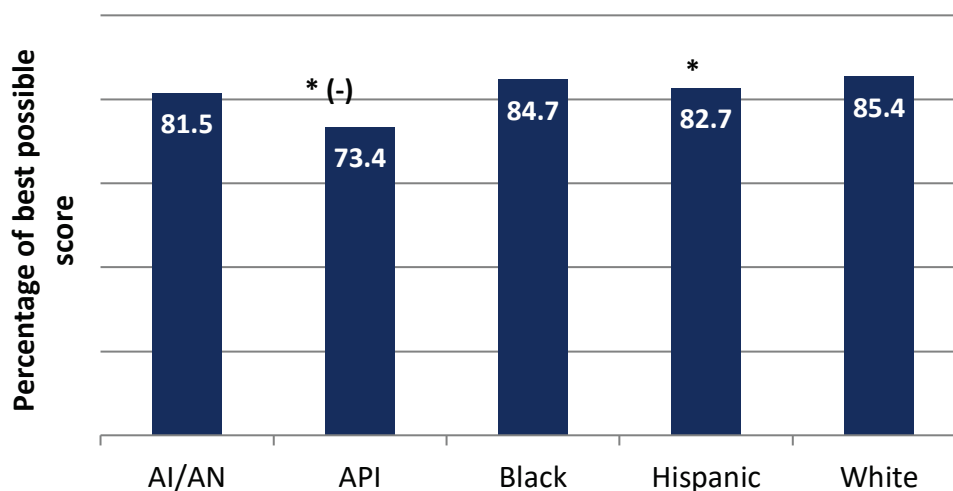
**Hispanic beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Annual flu vaccine

## Patient Experience

### Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse<sup>††</sup> experiences getting needed care than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.
- Hispanics also reported worse experiences getting needed care than Whites reported, but the difference between these groups was less than 3 points on a 0–100 scale.
- American Indians or Alaska Natives and Blacks reported experiences getting needed care that were similar to the experiences Whites reported.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

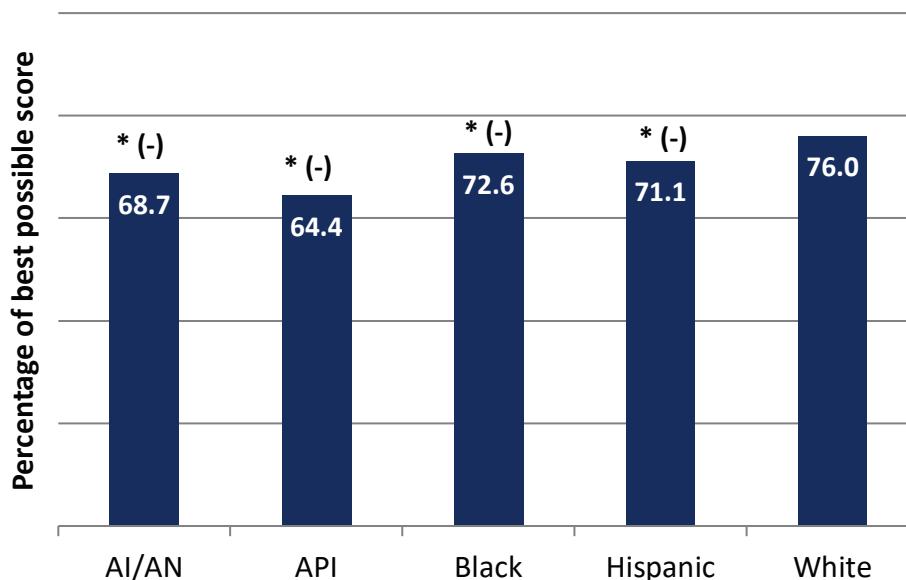
(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>††</sup> Unlike on the previous two pages, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives, Asians or Pacific Islanders, Blacks, and Hispanics reported worse experiences getting appointments and care quickly than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

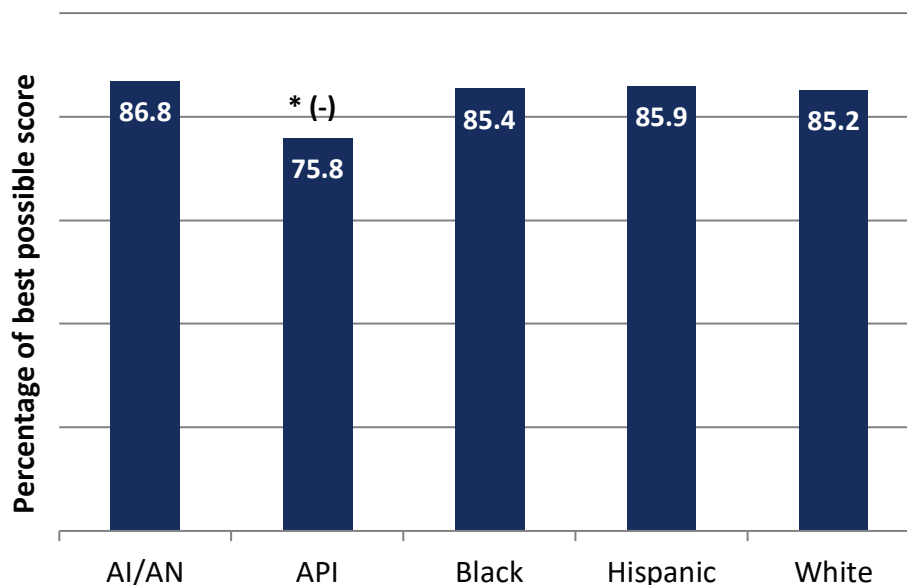
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse experiences with customer service than Whites reported. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0–100 scale.
- American Indians or Alaska Natives, Blacks, and Hispanics reported experiences with customer service that were similar to the experiences that Whites reported.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

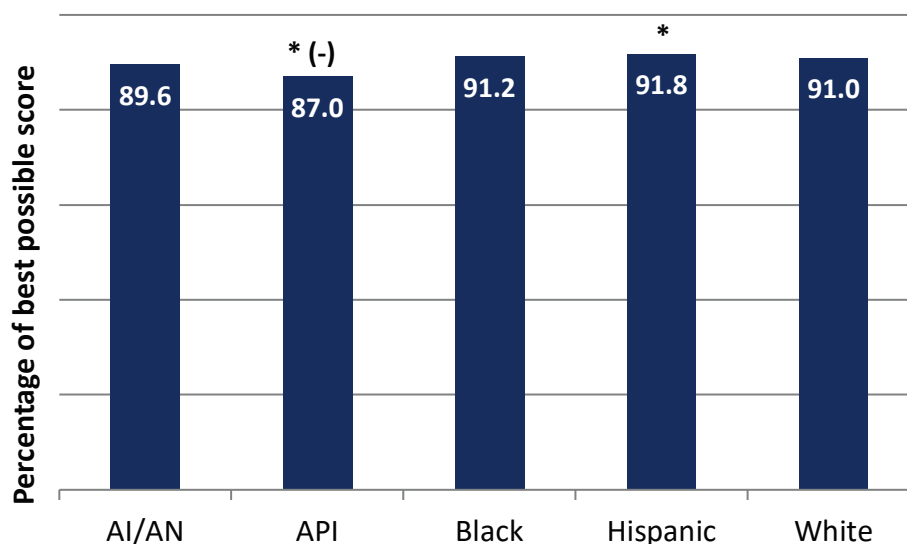
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months health plan customer service staff provided the information or the help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse experiences with doctor communication than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.
- Hispanics reported experiences with doctor communication that were better than the experiences that Whites reported. The difference between these groups was less than 3 points on a 0–100 scale.
- American Indians or Alaska Natives and Blacks reported experiences with doctor communication that were similar to the experiences reported by Whites.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

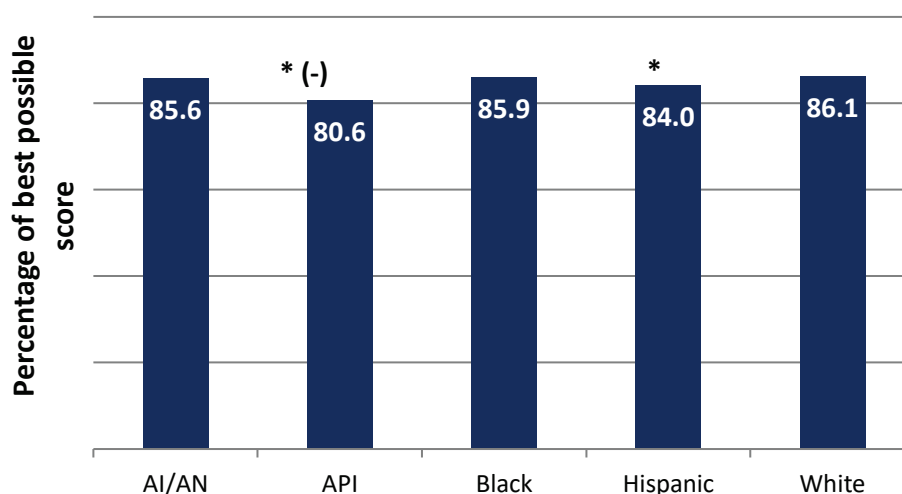
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patients' care was coordinated,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse experiences with care coordination than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.
- Hispanics reported worse experiences with care coordination than Whites reported. The difference between Hispanics and Whites was less than 3 points on a 0–100 scale.
- American Indians or Alaska Natives and Blacks reported experiences with care coordination that were similar to the experiences reported by Whites.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

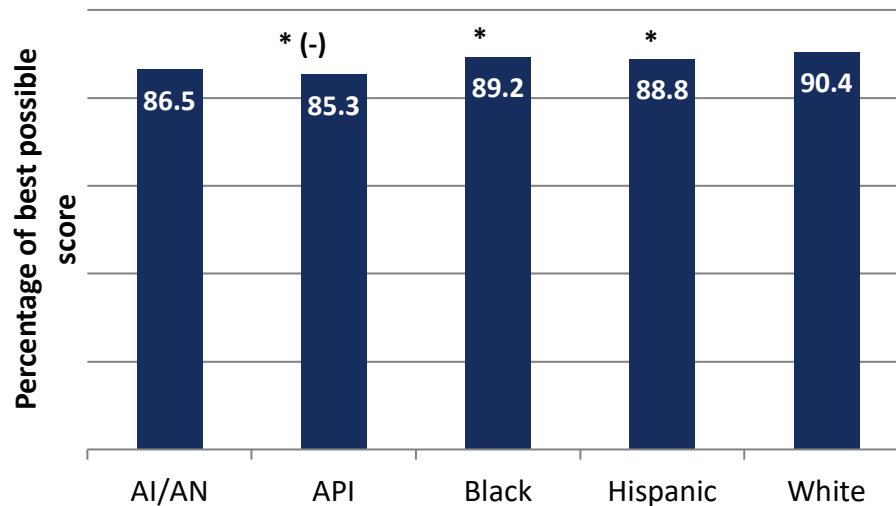
(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.



## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse experiences getting needed prescription drugs than Whites reported. The difference between these groups was greater than 3 points on a 0–100 scale.
- Blacks and Hispanics reported worse experiences getting needed prescription drugs than Whites reported. The difference between each of these groups and Whites was less than 3 points on a 0–100 scale.
- American Indians or Alaska Natives reported experiences getting needed prescription drugs that were similar to experiences reported by Whites.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

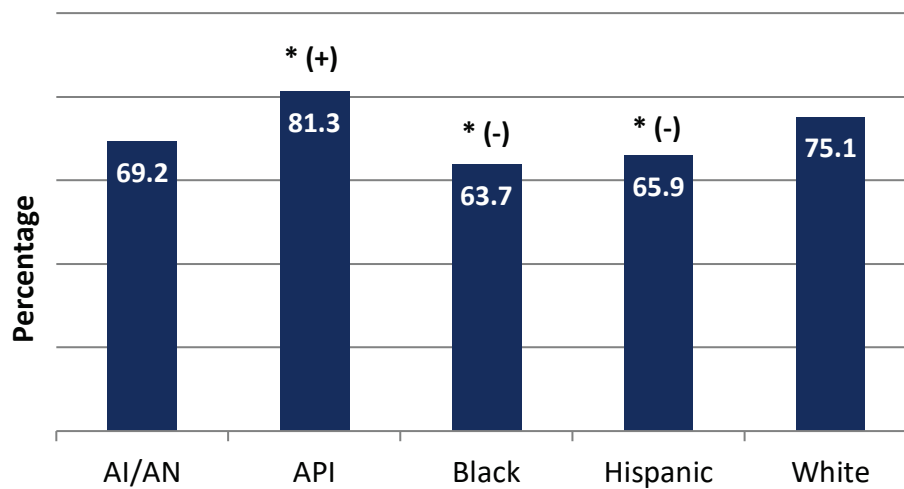
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race and ethnicity, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders were more likely than Whites to have received the flu vaccine. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks and Hispanics were less likely than Whites to have received the flu vaccine. The difference between each of these groups and Whites was greater than 3 percentage points.
- American Indians or Alaska Natives were about as likely as Whites to have received the flu vaccine.

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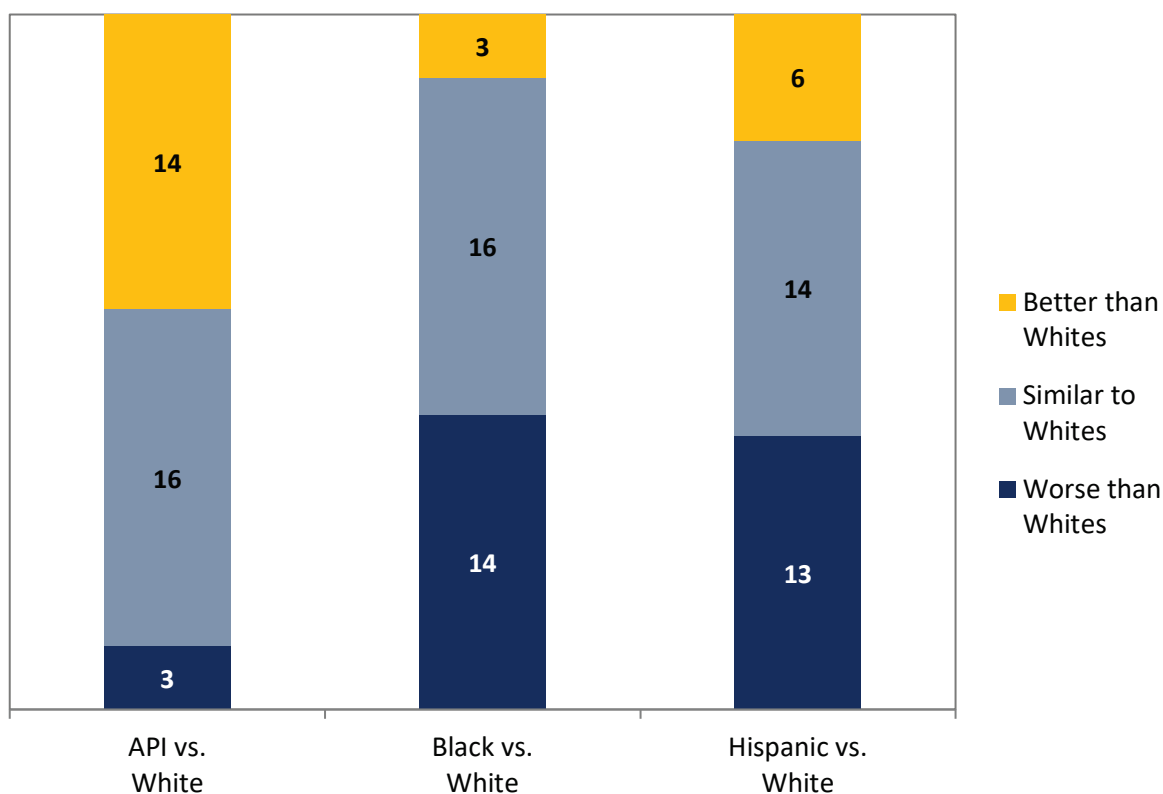
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 33) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2017



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

**NOTES:** API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

**API beneficiaries received worse care than White beneficiaries**

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**API beneficiaries received better care than White beneficiaries**

- Colorectal cancer screening
- Breast cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Osteoporosis management in women who had a fracture
- Avoiding use of high-risk medications in the elderly
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Medication reconciliation after hospital discharge
- Follow-up after hospital stay for mental illness (within 7 days of discharge)

**Black beneficiaries received worse care than White beneficiaries**

- Colorectal cancer screening
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Controlling blood pressure
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Medication reconciliation after hospital discharge
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic beneficiaries received worse care than White beneficiaries**

- Colorectal cancer screening
- Diabetes care—blood sugar controlled
- Medication adherence for diabetes—statins
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

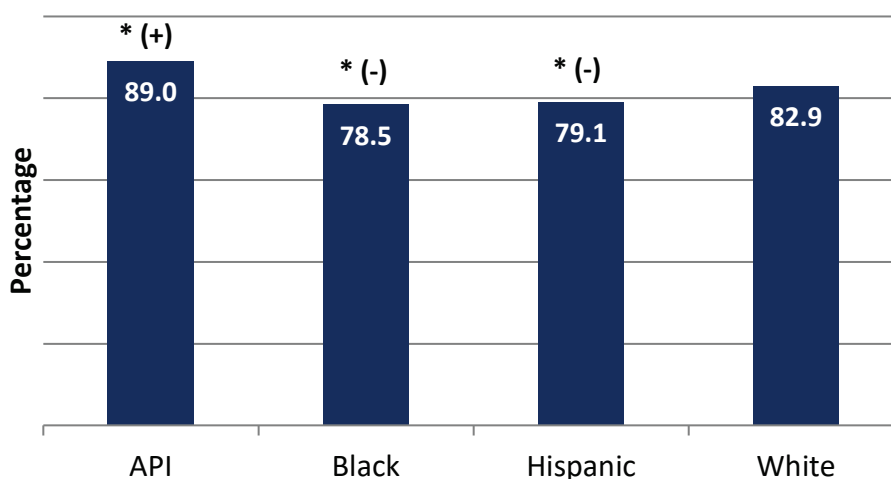
**Hispanic beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Osteoporosis management in women who had a fracture
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

## Clinical Care

### Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders were more likely than Whites to have been appropriately screened for colorectal cancer. The difference between these groups was greater than 3 percentage points.
- Blacks and Hispanics were less likely than Whites to have been appropriately screened for colorectal cancer. The difference between each of these groups and Whites was greater than 3 percentage points.

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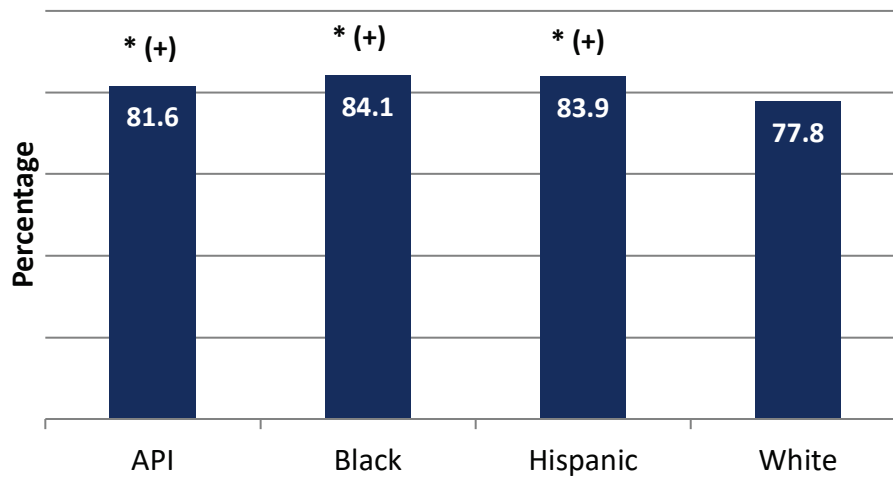
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Breast Cancer Screening

Percentage of Medicare enrollees (women) aged 50–74 years who had appropriate screening for breast cancer, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asian or Pacific Islander, Black, and Hispanic women were more likely than White women to have been appropriately screened for breast cancer. The difference between each of these groups of women and White women was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

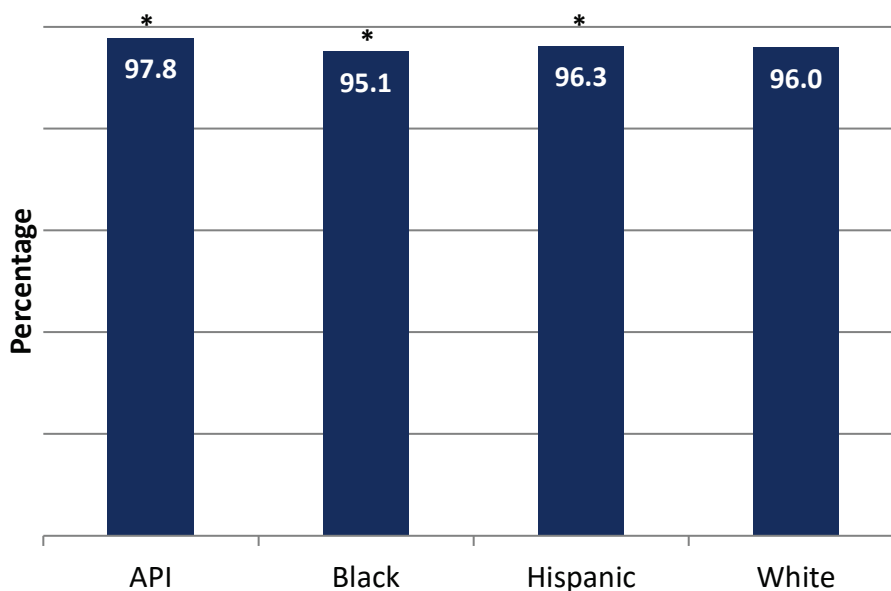
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Blacks and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

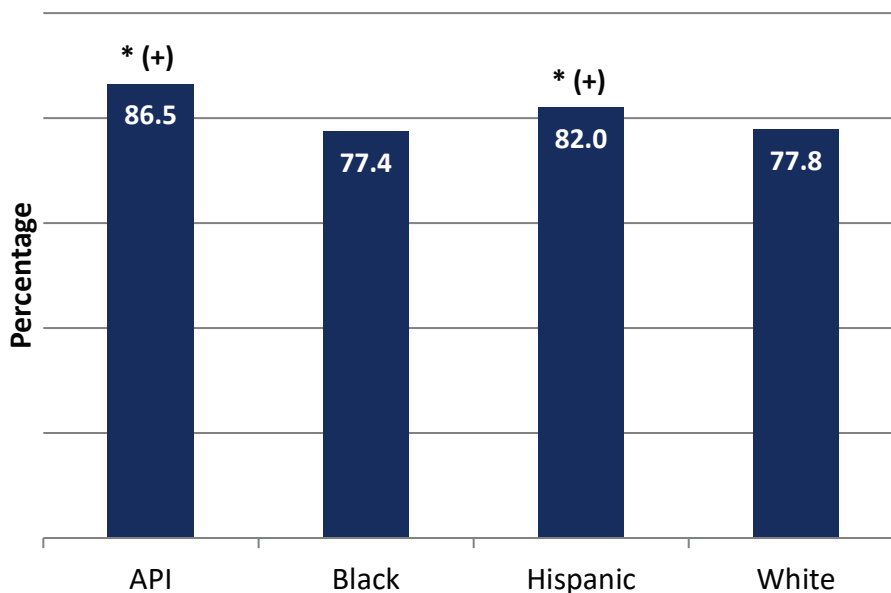
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



### Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had an eye exam in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were about as likely as Whites with diabetes to have had an eye exam in the past year.

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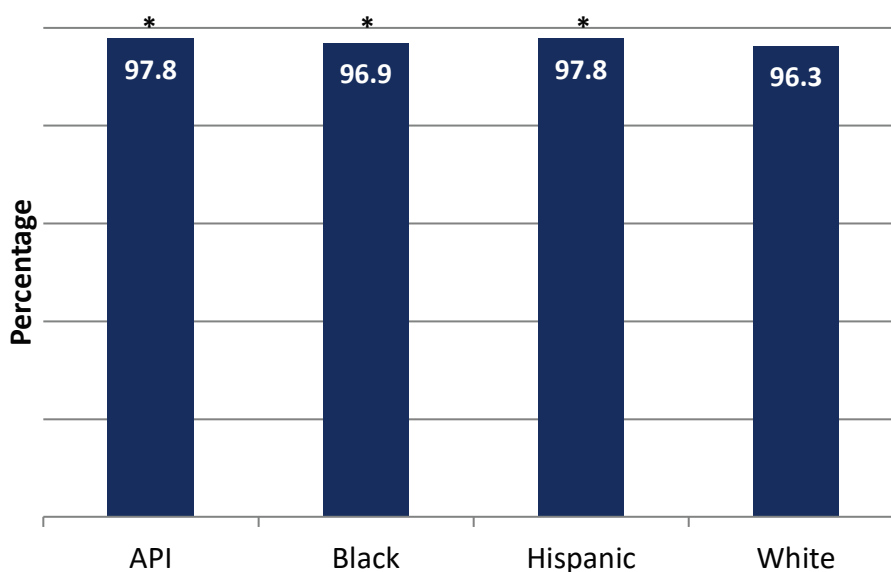
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with diabetes were more likely than Whites with diabetes to have had medical attention for nephropathy in the past year. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

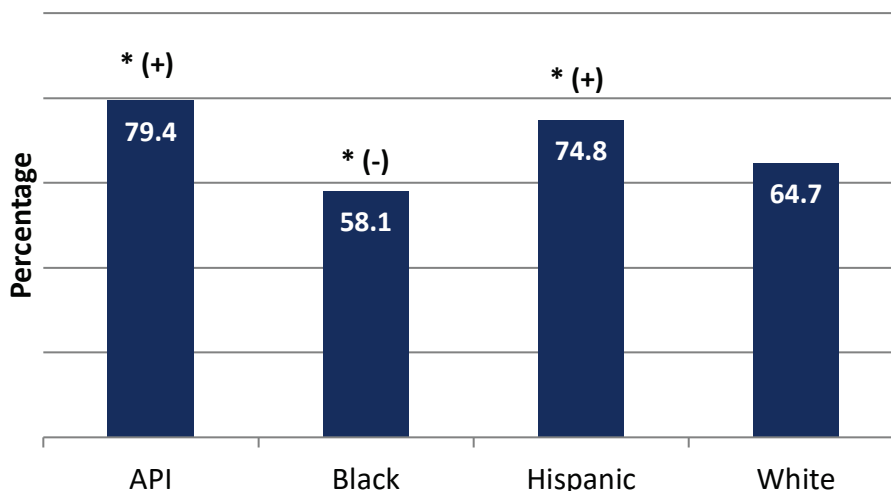
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood pressure under control. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have their blood pressure under control. The difference between these groups was greater than 3 percentage points.

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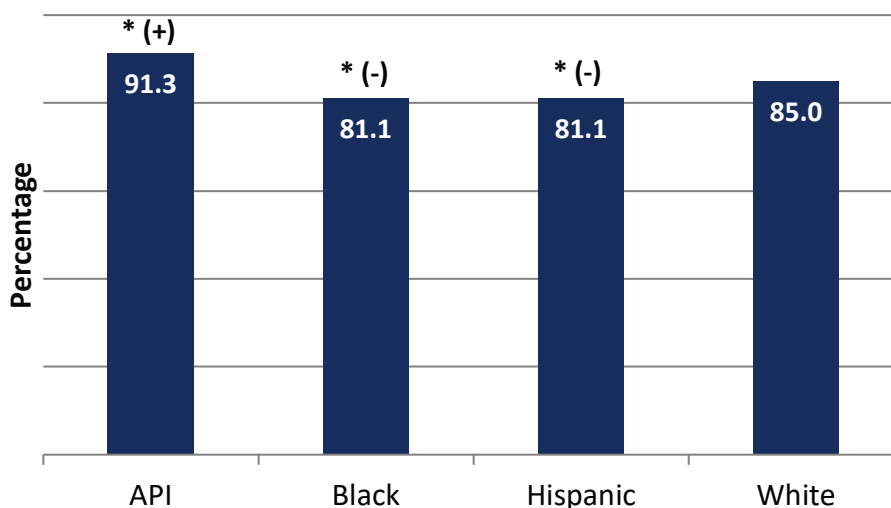
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have their blood sugar level under control. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have their blood sugar level under control. The difference between each of these groups and Whites was greater than 3 percentage points.

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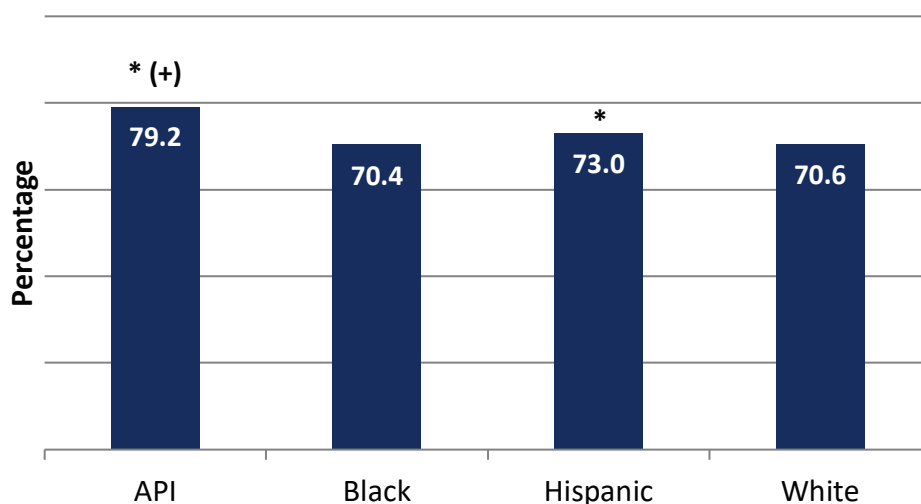
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Statin Use in Patients with Diabetes

Percentage of Medicare enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have received statin therapy. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Hispanics with diabetes were more likely than Whites with diabetes to have received statin therapy. The difference between Hispanics and Whites was less than 3 percentage points.

Blacks with diabetes were about as likely as Whites with diabetes to have received statin therapy.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

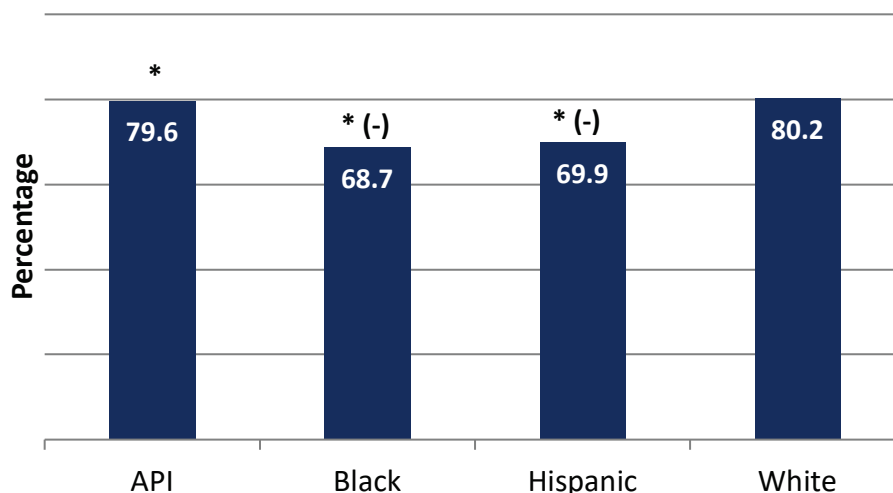
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Medication Adherence for Diabetes—Statins

Percentage of Medicare enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have had proper statin medication adherence. The difference between each of these groups and Whites was greater than 3 percentage points.

Asians or Pacific Islanders with diabetes were less likely than Whites with diabetes to have had proper statin medication adherence. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.

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<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

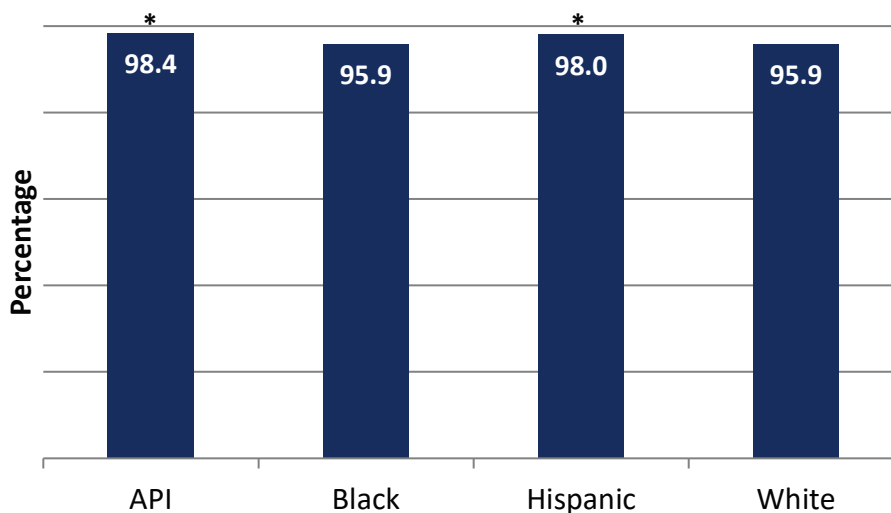
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Adult Body Mass Index Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit whose body mass index (BMI) was documented in the past two years, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders and Hispanics were more likely than Whites to have had their BMI documented. The difference between each of these groups and Whites was less than 3 percentage points.

Blacks were about as likely as Whites to have had their BMI documented.

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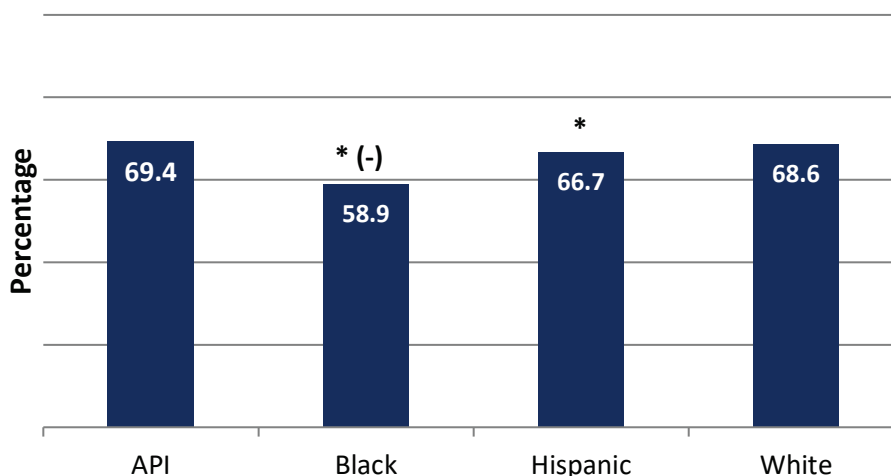
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years with a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Blacks who had a diagnosis of hypertension were less likely than Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Blacks and Whites was greater than 3 percentage points.
- Hispanics who had a diagnosis of hypertension were less likely than Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Hispanics and Whites was less than 3 percentage points.
- Asians or Pacific Islanders who had a diagnosis of hypertension were about as likely as Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

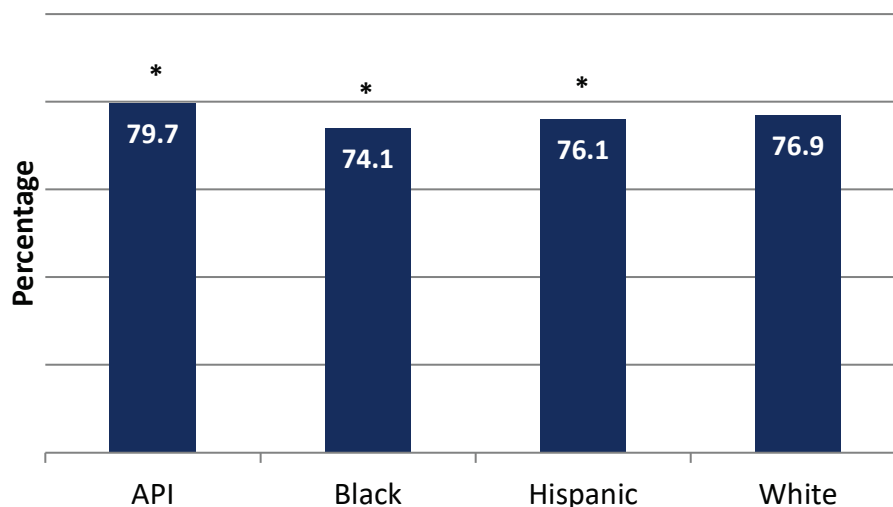
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.



## Clinical Care: Statin Use in Patients with Cardiovascular Disease

Percentage of male Medicare enrollees aged 21 to 75 years and female Medicare enrollees aged 40 to 75 years who have clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders with ASCVD were more likely than Whites with ASCVD to have received statin therapy. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics with ASCVD were less likely than Whites with ASCVD to have received statin therapy. The difference between each of these groups and Whites was less than 3 percentage points.

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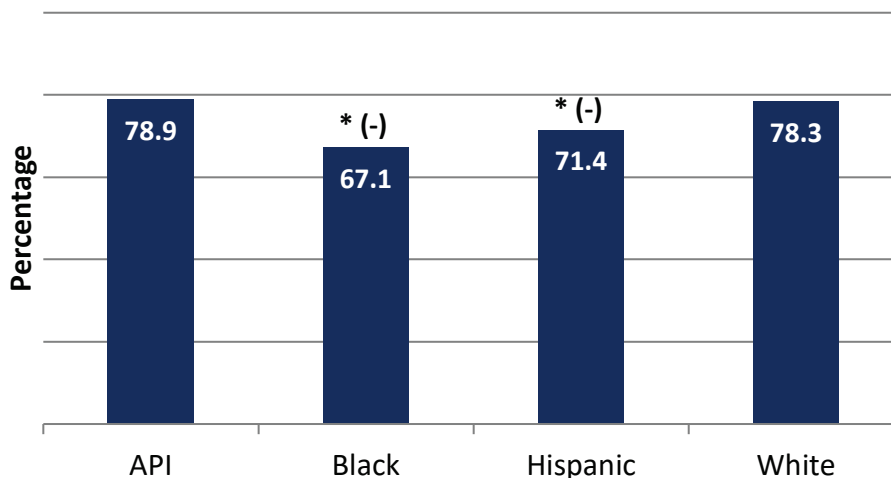
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Medication Adherence for Cardiovascular Disease—Statins

Percentage of male Medicare enrollees aged 21 to 75 years and female Medicare enrollees aged 40 to 75 years who had clinical atherosclerotic cardiovascular disease (ASCVD) and were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Blacks and Hispanics with ASCVD were less likely than Whites with ASCVD to have had proper statin medication adherence. The difference between each of these groups and Whites was greater than 3 percentage points.
- Asians or Pacific Islanders with ASCVD were about as likely as Whites with ASCVD to have had proper statin medication adherence.

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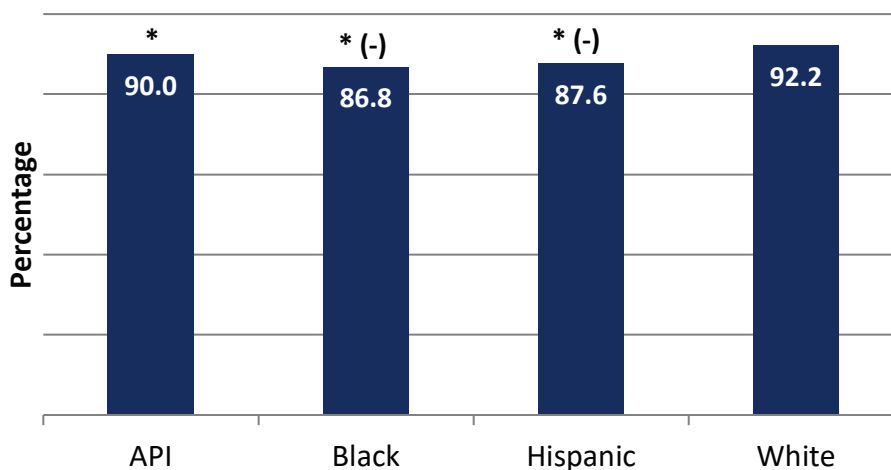
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (heart attack) who received persistent beta-blocker treatment for 6 months after discharge, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Blacks and Hispanics who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between each of these groups and Whites was greater than 3 percentage points.
- Asians or Pacific Islanders who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.

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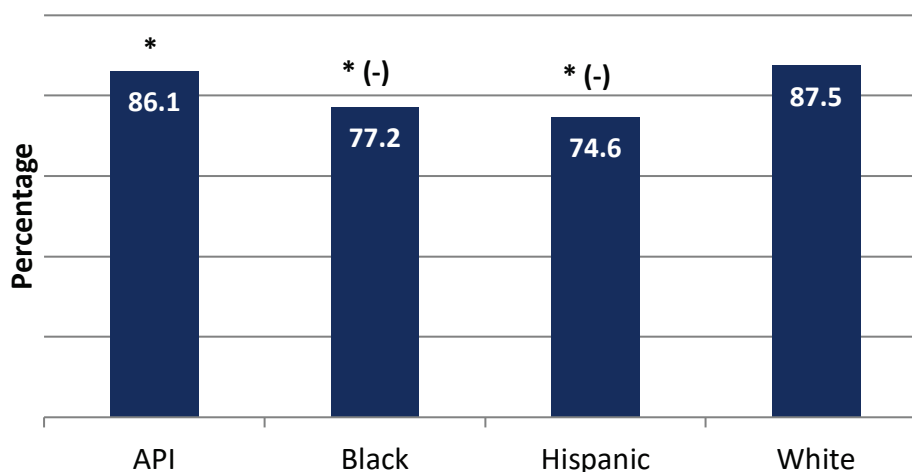
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Asthma Medication Ratio in Older Adults

Percentage of Medicare enrollees aged 65 to 85 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the past year, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Black and Hispanic older adults with persistent asthma were less likely than White older adults with persistent asthma to have had appropriate asthma medication management during the past year. The difference between Black and White older adults was greater than 3 percentage points; the difference between Hispanic and White older adults was also greater than 3 percentage points.
- Asian or Pacific Islander older adults with persistent asthma were less likely than White older adults with persistent asthma to have had appropriate asthma medication management during the past year. The difference between Asian or Pacific Islander and White older adults was less than 3 percentage points.

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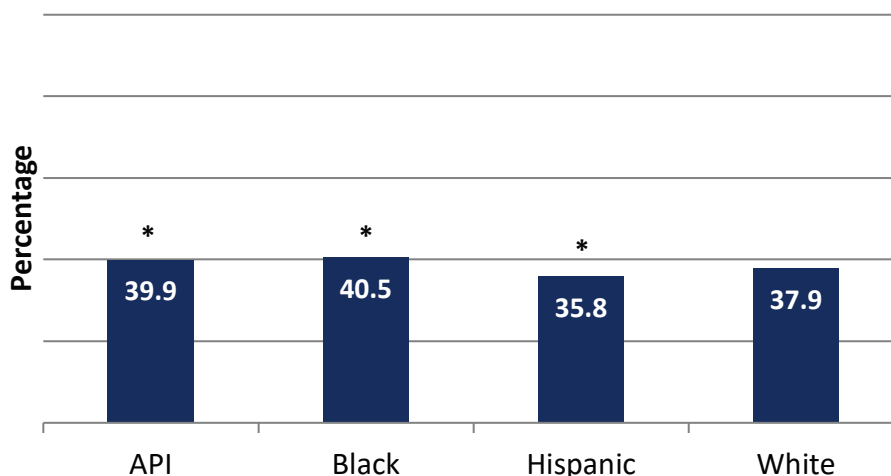
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of chronic obstructive pulmonary disease (COPD) or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Asians or Pacific Islanders and Blacks with a new diagnosis of COPD or newly active COPD were more likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between each of these groups and Whites was less than 3 percentage points.
- Hispanics with a new diagnosis of COPD or newly active COPD were less likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Hispanics and Whites was less than 3 percentage points.

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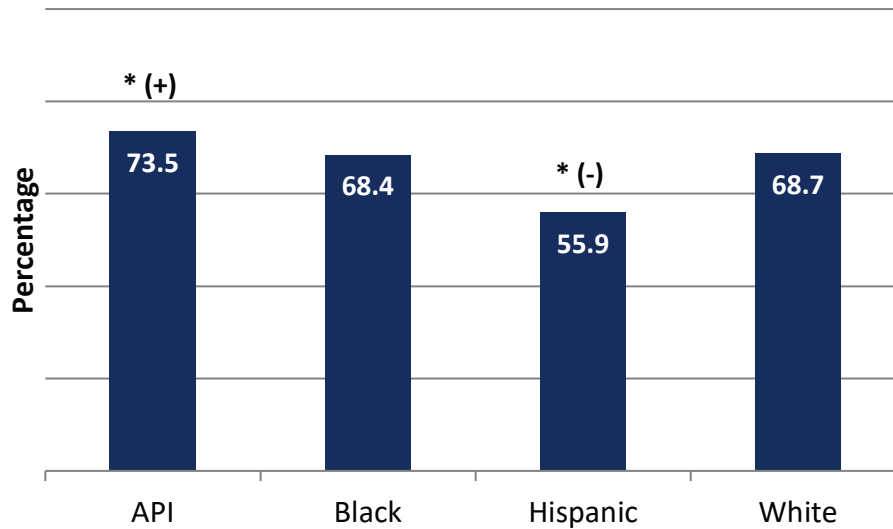
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of COPD exacerbations for MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year in which a systemic corticosteroid was dispensed within 14 days of the event, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between these groups was greater than 3 percentage points.
- Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between these groups was greater than 3 percentage points.
- Blacks who experienced a COPD exacerbation were about as likely as Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event.

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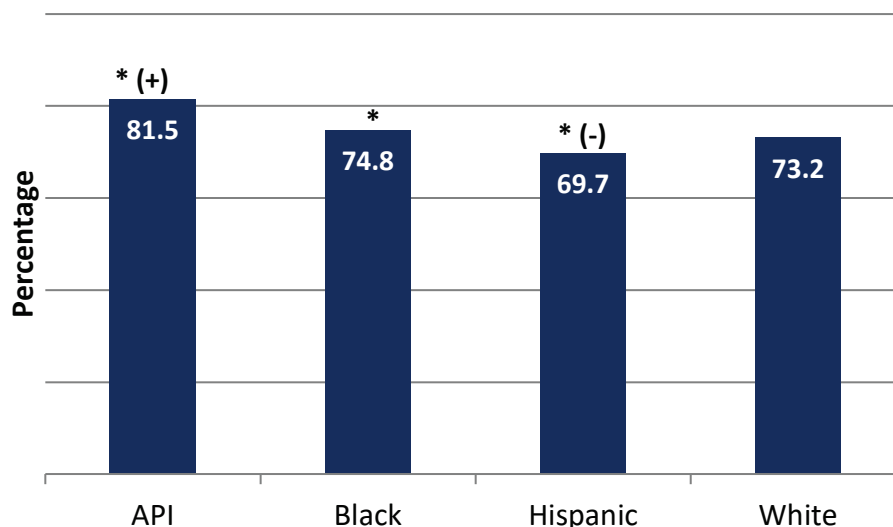
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation— Bronchodilator

Percentage of MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter for COPD exacerbation in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Blacks and Whites was less than 3 percentage points.
- Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

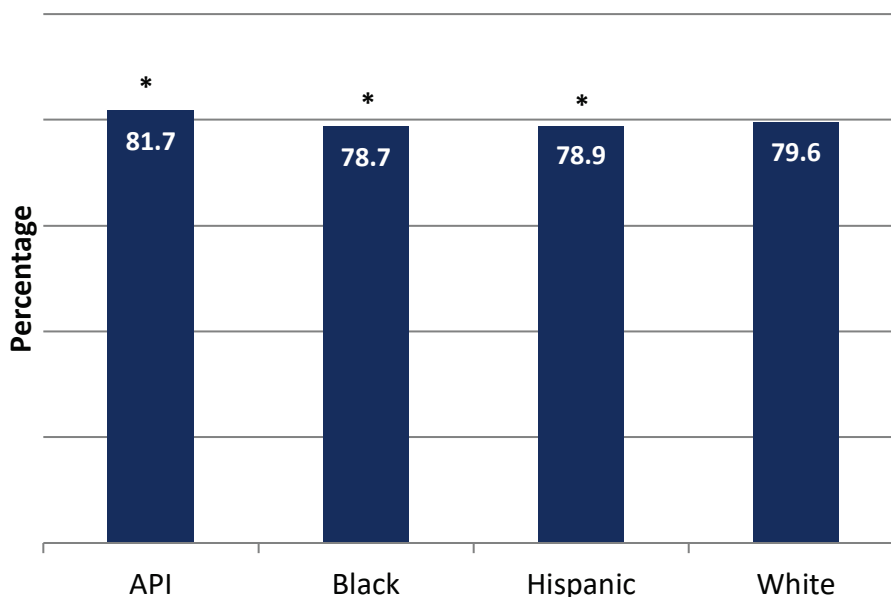
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders who were diagnosed with rheumatoid arthritis were more likely than Whites who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between these groups was less than 3 percentage points.
- Blacks and Hispanics who were diagnosed with rheumatoid arthritis were less likely than Whites who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

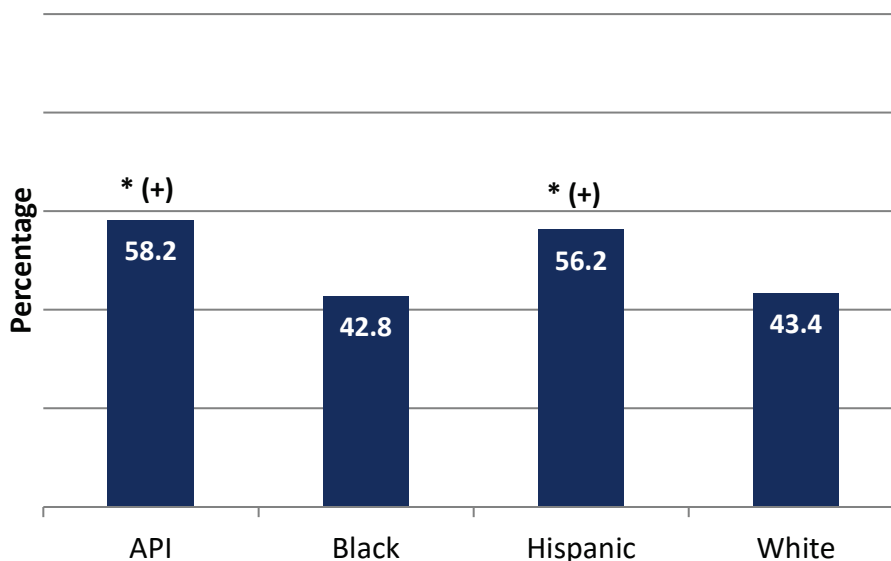
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



## Clinical Care: Osteoporosis Management in Women Who Had a Fracture

Percentage of Medicare enrollees (women) aged 67–85 years who suffered a fracture who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the 6 months after the fracture, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asian or Pacific Islander and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- Black women who suffered a fracture were about as likely as White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis.

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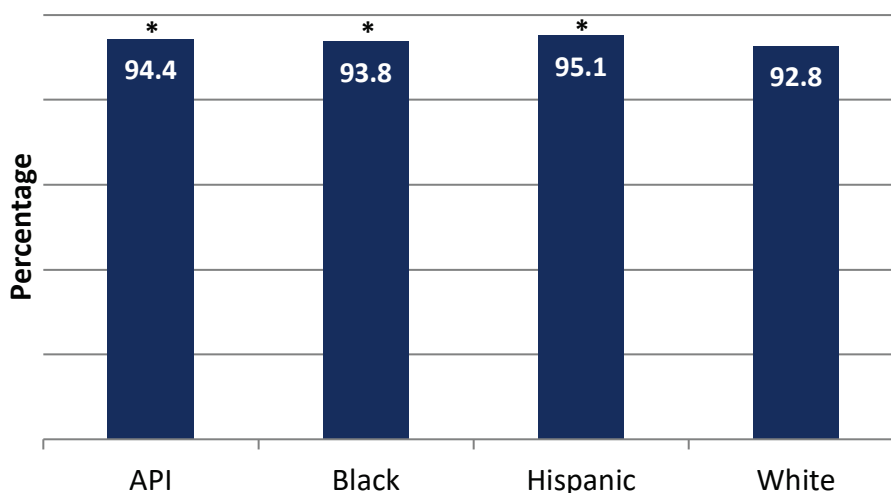
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year who also had at least one therapeutic monitoring event for the therapeutic agent, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics were more likely than Whites to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

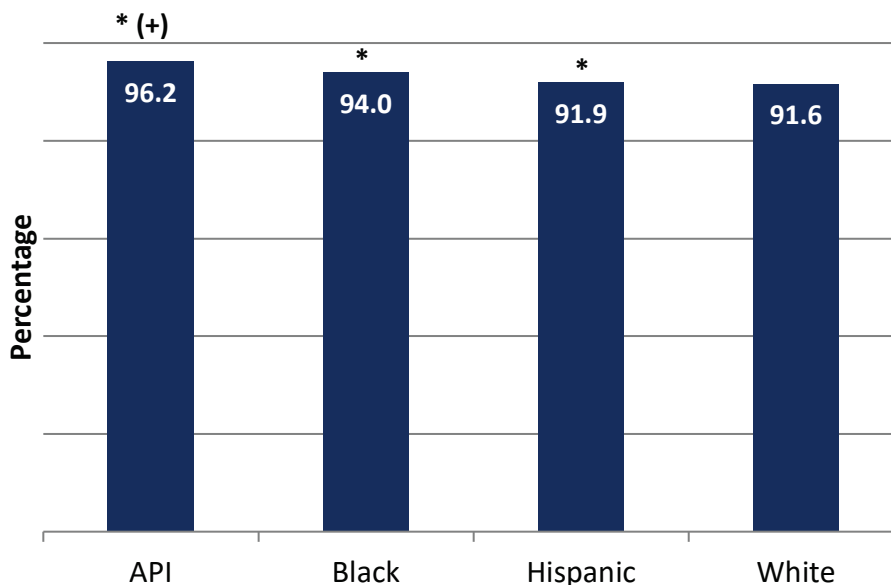
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for 6 months or longer: angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2017 data, it was observed that this standard of care was met more often for Asians or Pacific Islanders than for Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In the 2017 data, it was observed that this standard of care was met more often for Blacks and Hispanics than for Whites. The difference between each of these groups and Whites was less than 3 percentage points.

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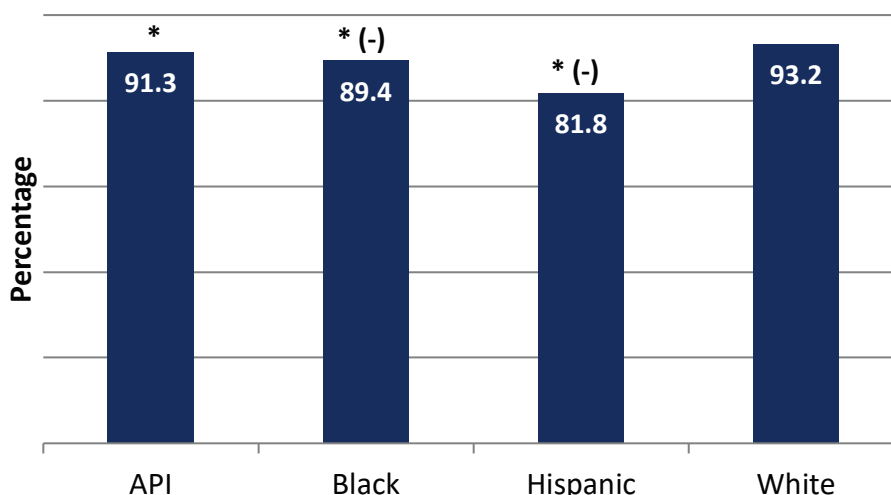
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Blacks and Hispanics with chronic renal failure were less likely than elderly Whites with chronic renal failure to not have been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- Elderly Asians or Pacific Islanders with chronic renal failure were less likely than elderly Whites with chronic renal failure to not have been dispensed a potentially harmful medication. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

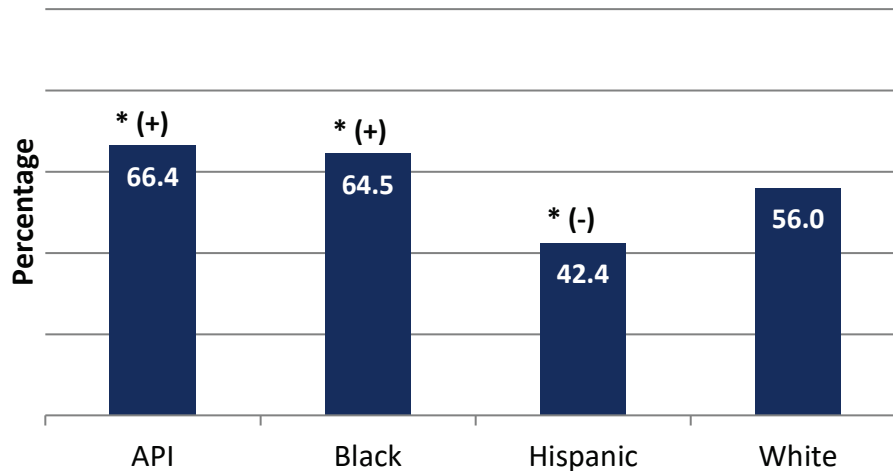
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes cyclooxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Asians or Pacific Islanders and Blacks with dementia were more likely than elderly Whites with dementia to not have been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- Elderly Hispanics with dementia were less likely than elderly Whites with dementia to not have been dispensed a potentially harmful medication. The difference between Hispanics and Whites was greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

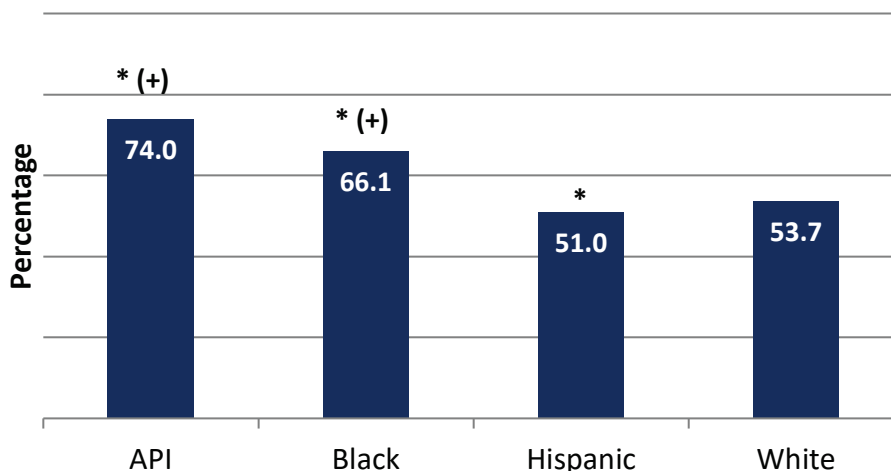
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Asians or Pacific Islanders and Blacks with a history of falls were more likely than elderly Whites with a history of falls to not have been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- Elderly Hispanics with a history of falls were less likely than elderly Whites with a history of falls to not have been dispensed a potentially harmful medication. The difference between these groups was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

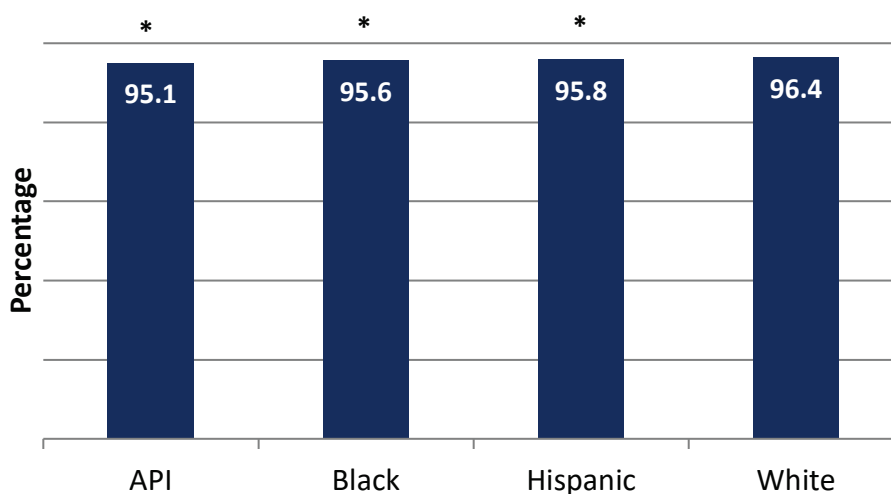
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics were less likely than Whites to have had an ambulatory or preventive care visit. The difference between each of these groups and Whites was less than 3 percentage points.

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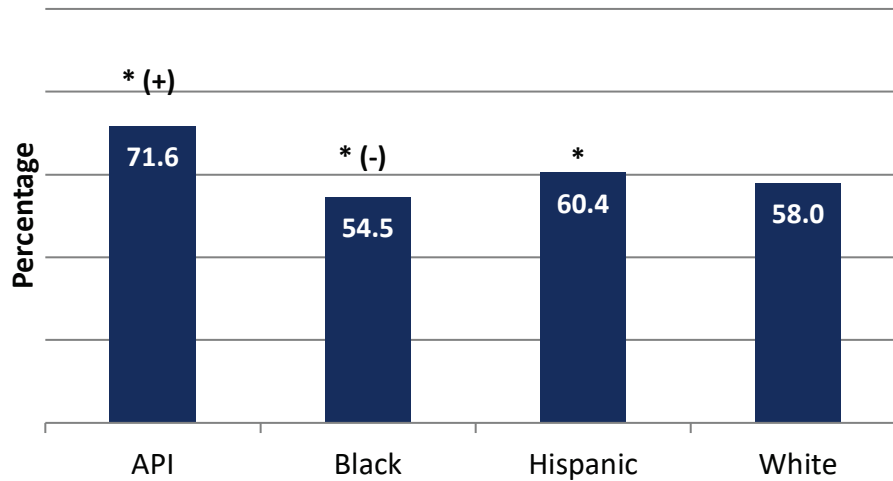
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Medication Reconciliation After Hospital Discharge

Percentage of Medicare enrollees aged 18 years and older who were discharged from an inpatient facility and had their medications reconciled within 30 days, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders who were discharged from an inpatient facility were more likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Hispanics who were discharged from an inpatient facility were more likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Hispanics and Whites was less than 3 percentage points.
- Blacks who were discharged from an inpatient facility were less likely than Whites who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between these groups was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

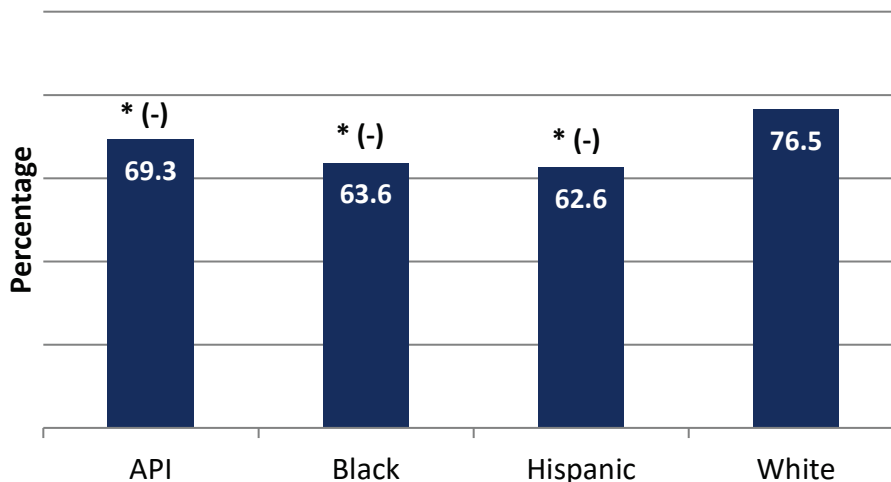
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



## Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression who remained on antidepressant medication for at least 84 days, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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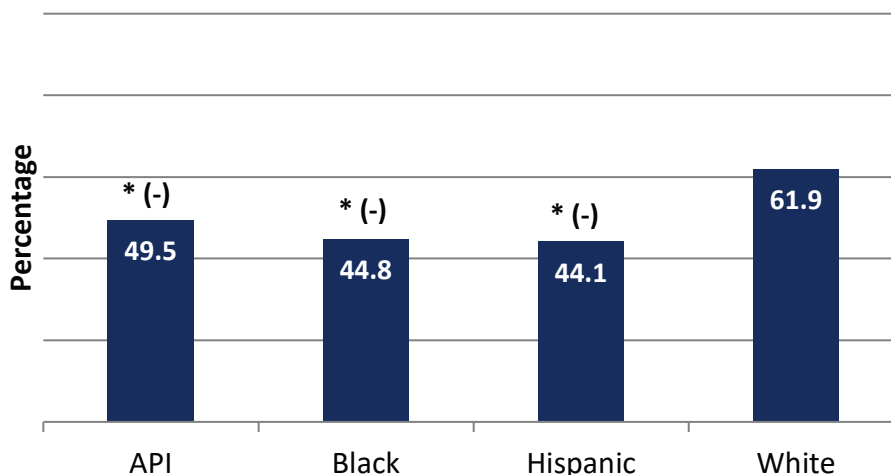
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment

**Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on an antidepressant medication treatment for at least 180 days, by race and ethnicity, 2017**



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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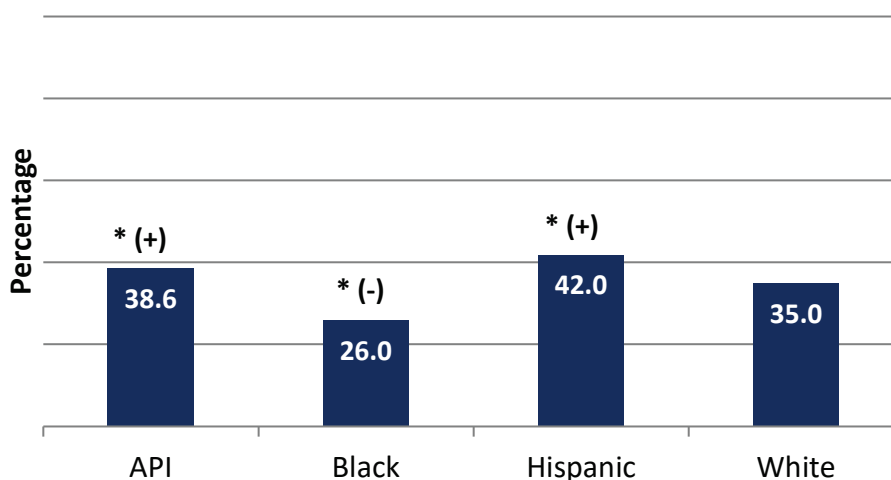
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 7 days of discharge, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of being discharged. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

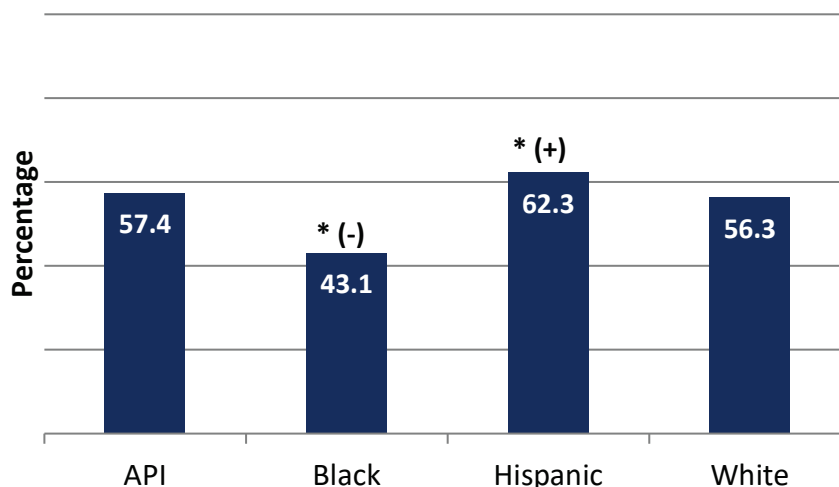
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between these groups was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between these groups was greater than 3 percentage points.
- Asians or Pacific Islanders who were hospitalized for a mental health disorder were about as likely as Whites who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

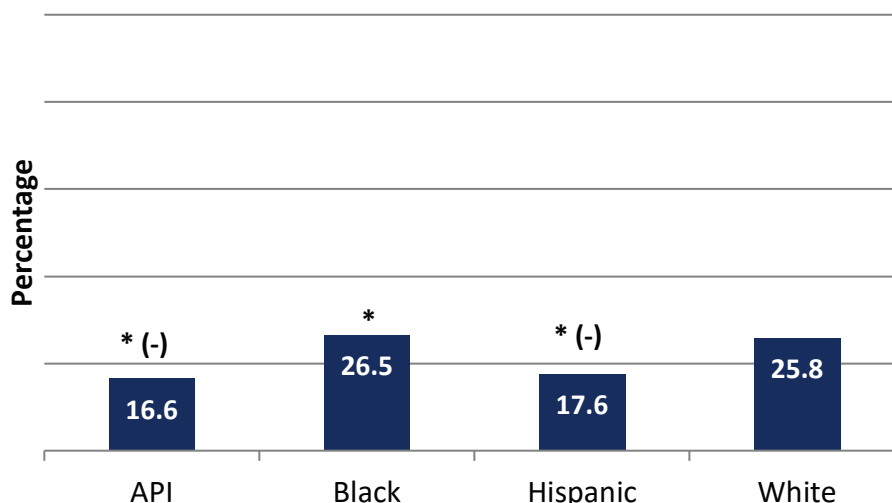
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or drug (AOD) dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence were less likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with a new episode of AOD dependence were more likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Blacks and Whites was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

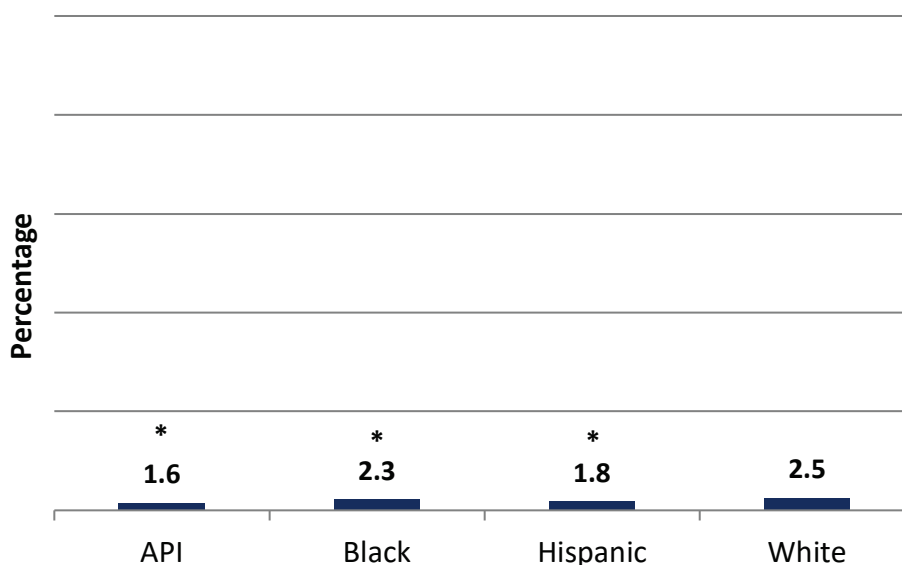
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with a new episode of AOD dependence who initiated treatment were less likely than Whites with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. The difference between each of these groups and Whites was less than 3 percentage points.

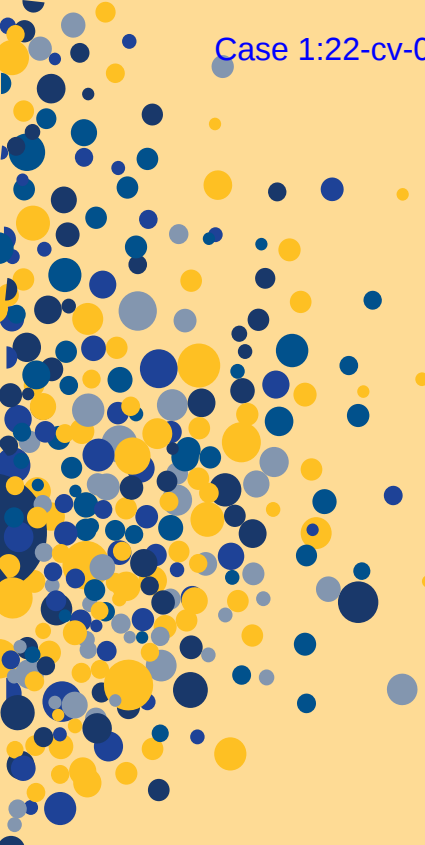
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\* Significantly different from the score for Whites ( $p < 0.05$ ).


For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

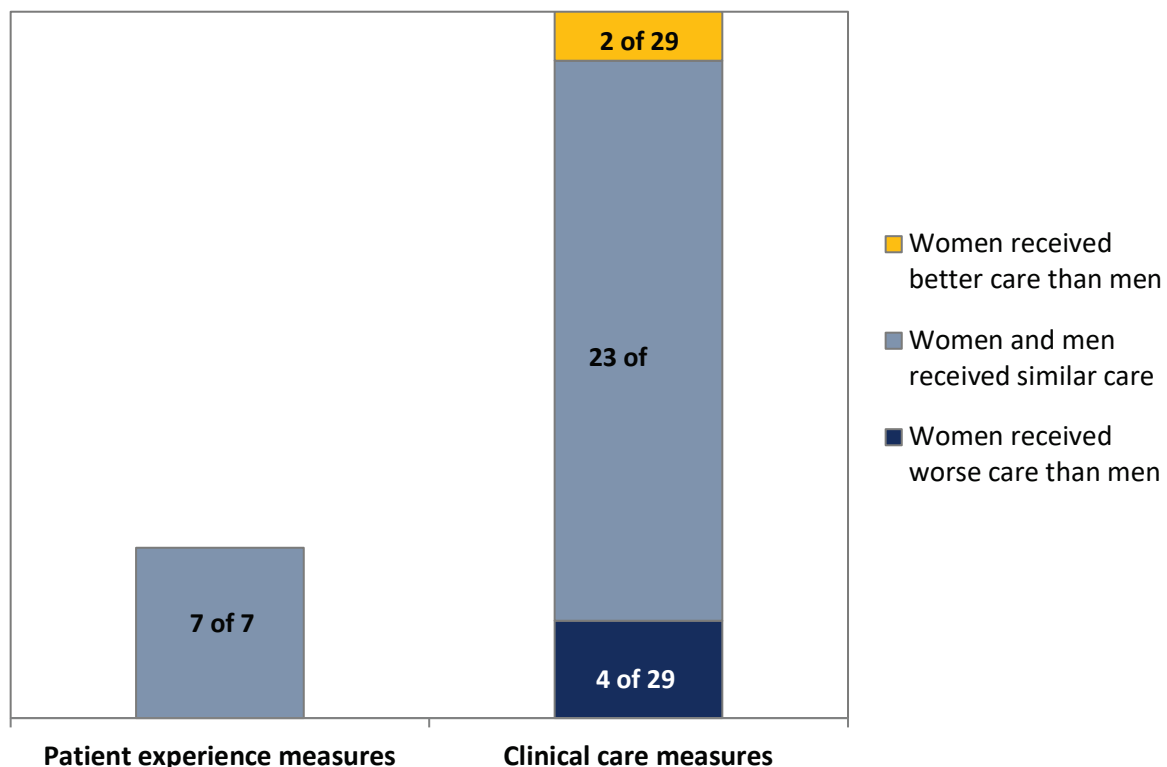


## **Section II: Gender Disparities in Health Care in Medicare Advantage**



## Disparities in Care: All Patient Experience and Clinical Care Measures

Number of patient experience measures (out of 7) and clinical care measures (out of 29) for which women received care that was worse than, similar to, or better than the care received by men in 2017



**SOURCES:** The bar on the left (patient experience measures) summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

The relative difference between men and women is used to assess disparities.

- **Better** = Women received better care than men. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor women.
- **Similar** = Women and men received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Women received worse care than men. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor men.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).



**Women receive worse clinical care than men**

- Avoiding use of high-risk medications in the elderly
- Avoiding potentially harmful drug-disease interactions in patients with dementia
- Avoiding potentially harmful drug-disease interactions in patients with a history of falls
- Initiation of alcohol or other drug treatment

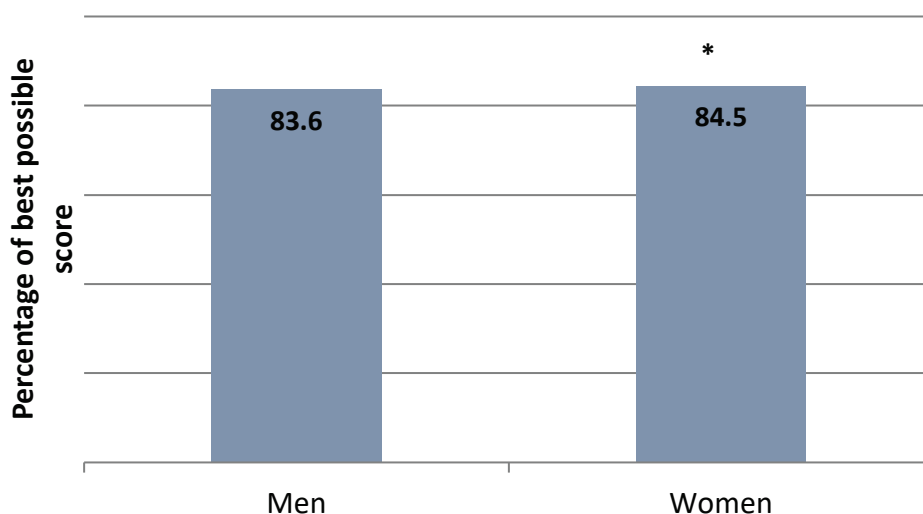
**Women receive better clinical care than men**

- Follow-up visit after hospital stay for mental illness (within 7 days of discharge)
- Follow-up visit after hospital stay for mental illness (within 30 days of discharge)

## Patient Experience

### Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

### Disparities

- Women reported better<sup>‡</sup> experiences getting needed care than men did, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

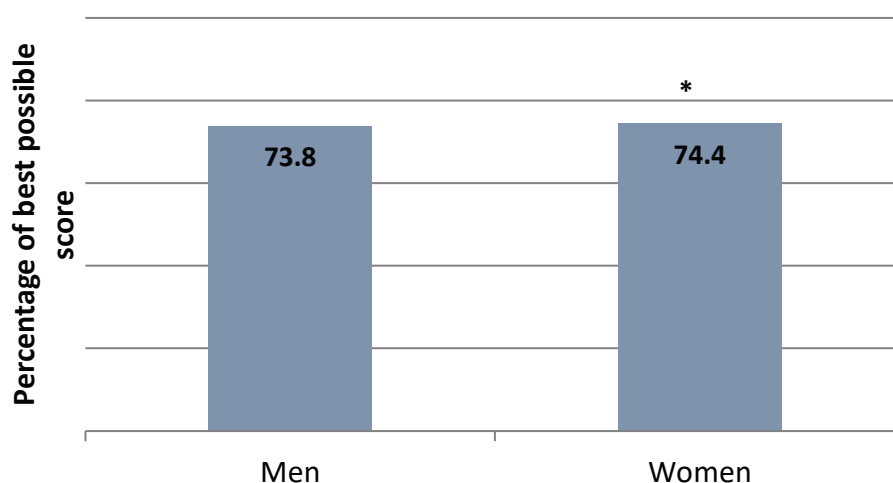
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last 6 months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>‡</sup> Unlike on the previous two pages, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

### Disparities

- Women reported better experiences with getting appointments and care quickly than men did, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

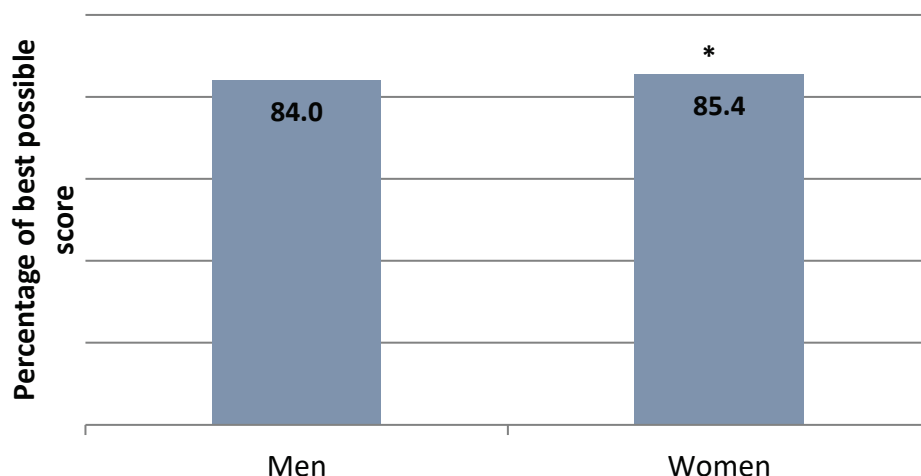
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last 6 months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

### Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

#### Disparities

- Women reported better experiences with customer service than men did, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

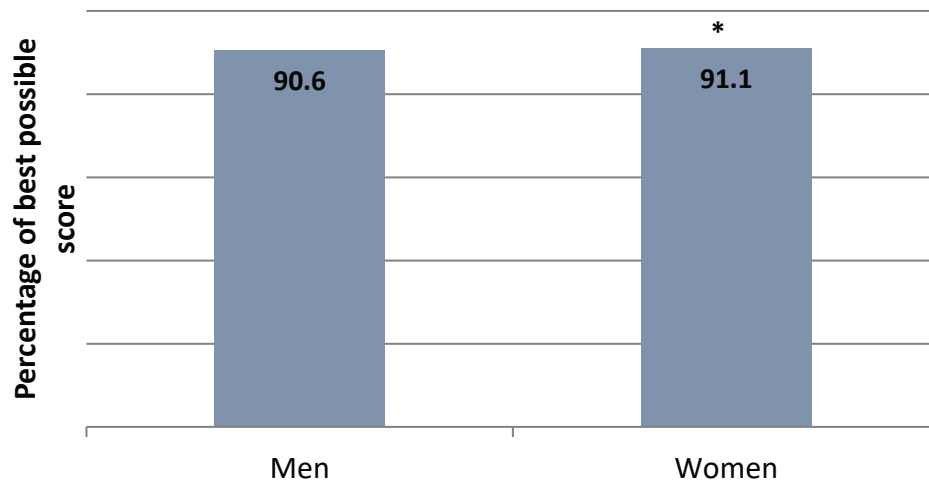
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last 6 months health plan customer service staff provided the information or help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

### Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

#### Disparities

- Women reported better experiences with doctor communication than men reported, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

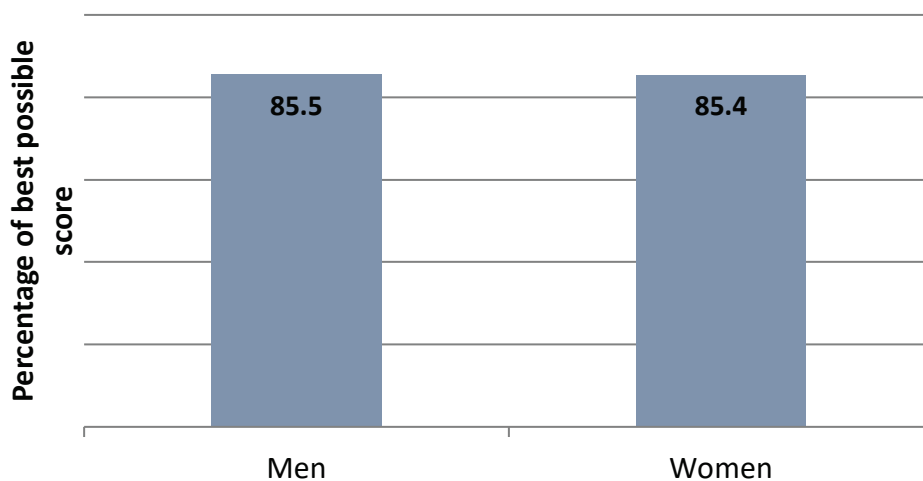
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last 6 months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

### Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care is coordinated,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

#### Disparities

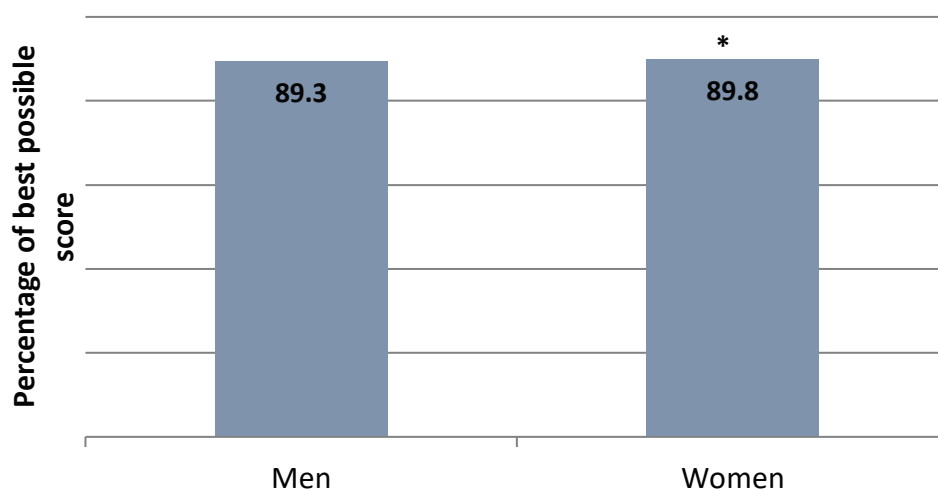
- Care coordination experiences reported by women were similar to care coordination experiences reported by men.

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<sup>†</sup> This includes how often in the last 6 months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

### Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

#### Disparities

- Women reported better experiences getting needed prescription drugs than men reported, but the difference between women and men was less than 3 points on a 0–100 scale.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

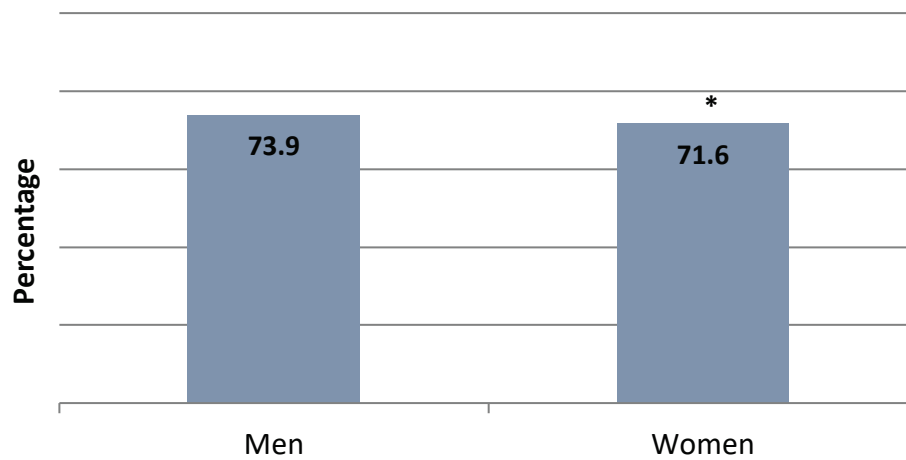
(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes how often in the last 6 months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

### Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

#### Disparities

- Women were less likely than men to have received the flu vaccine, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

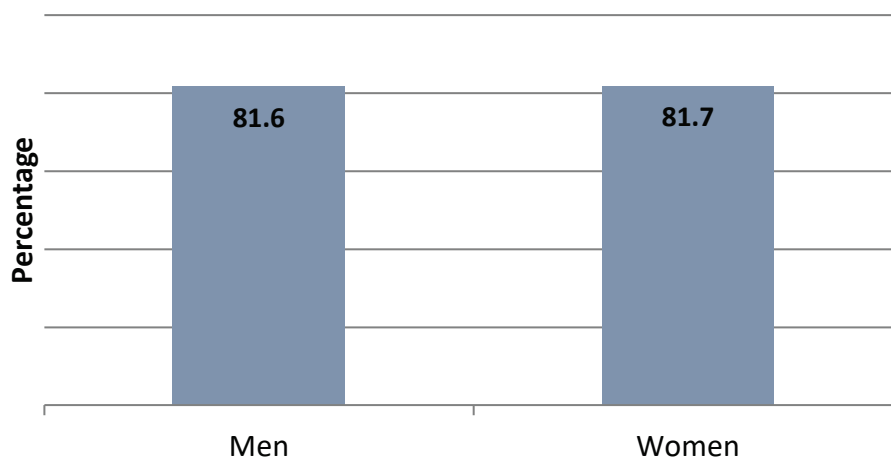
- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



## Clinical Care

### Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by gender, 2017



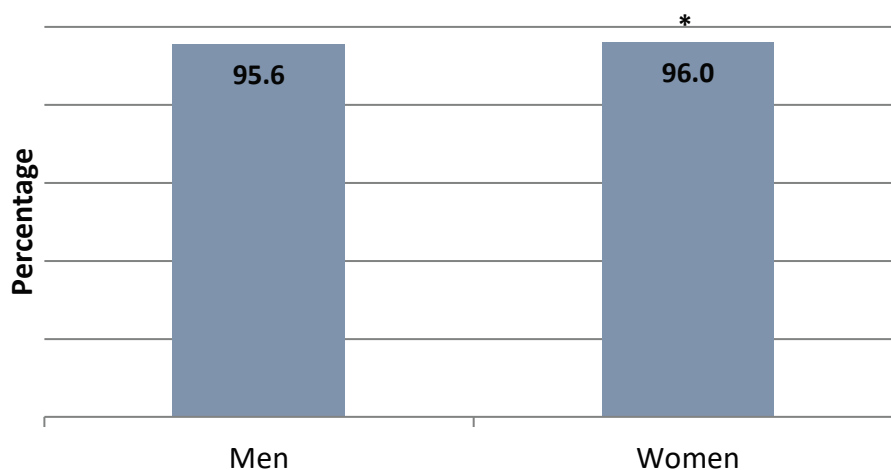
**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women were about as likely as men to have been appropriately screened for colorectal cancer.

### Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have had their blood sugar tested at least once in the past year. The difference between women and men was less than 3 percentage points.

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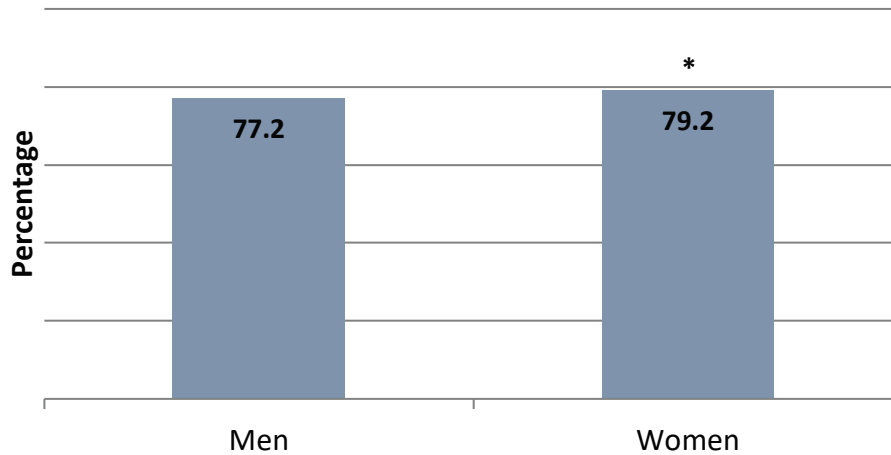
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have had an eye exam in the past year. The difference between women and men was less than 3 percentage points.

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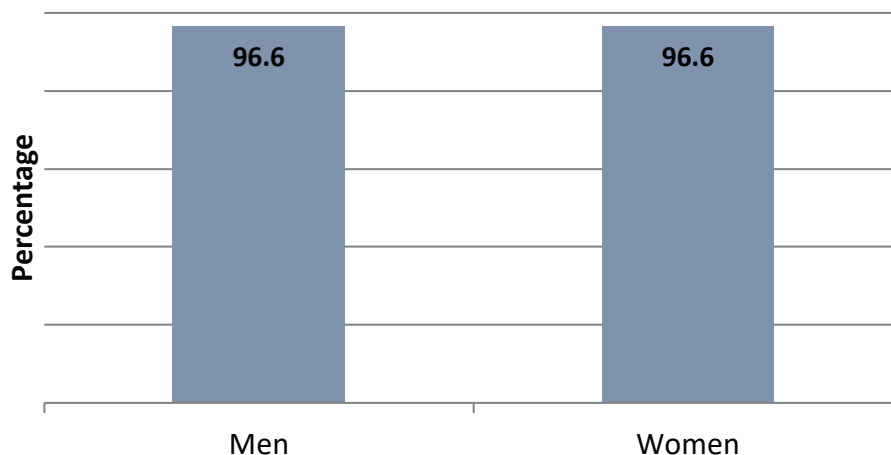
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by gender, 2017



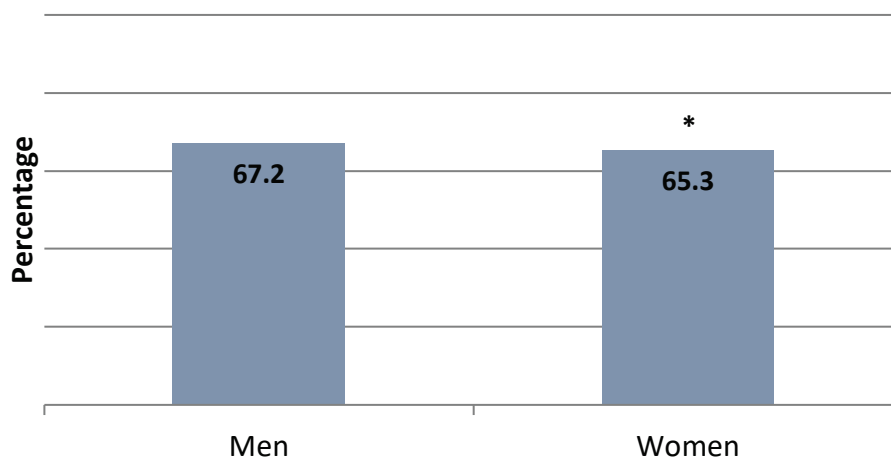
**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were about as likely as men with diabetes to have had medical attention for nephropathy in the past year.

### Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were less likely than men with diabetes to have their blood pressure under control. The difference between women and men was less than 3 percentage points.

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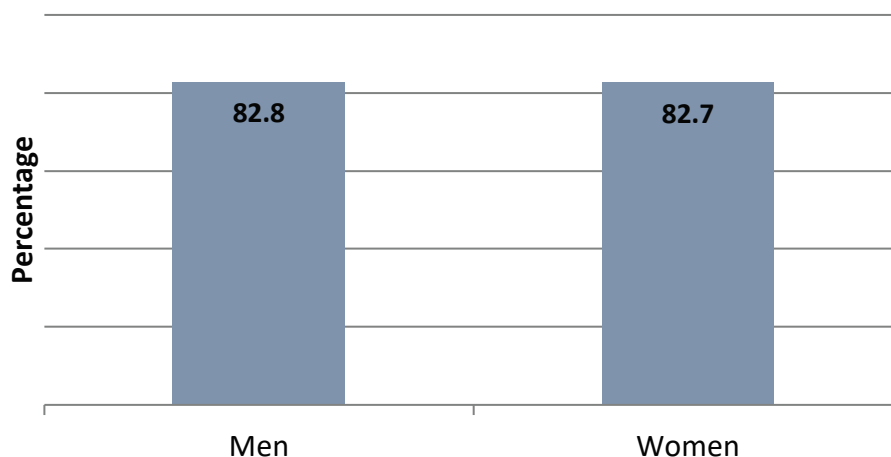
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by gender, 2017



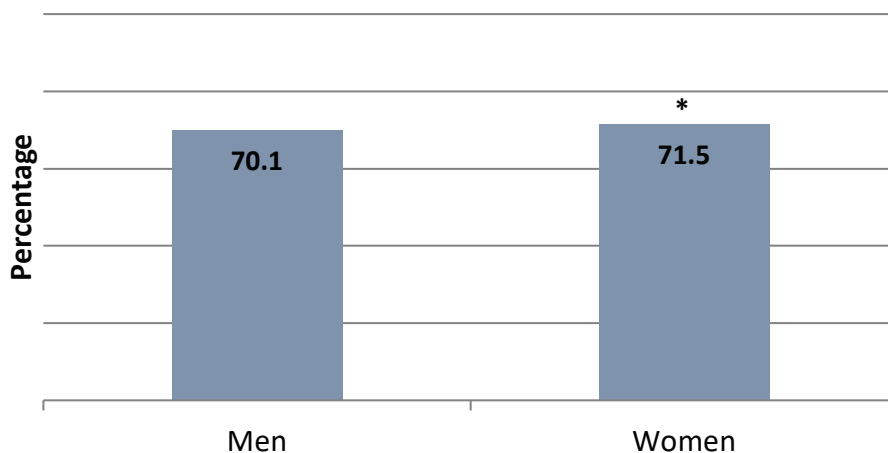
**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were about as likely as men with diabetes to have their blood sugar levels under control.

### Clinical Care: Statin Use in Patients with Diabetes

Percentage of Medicare enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with diabetes were more likely than men with diabetes to have received statin therapy. The difference between women and men was less than 3 percentage points.

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<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

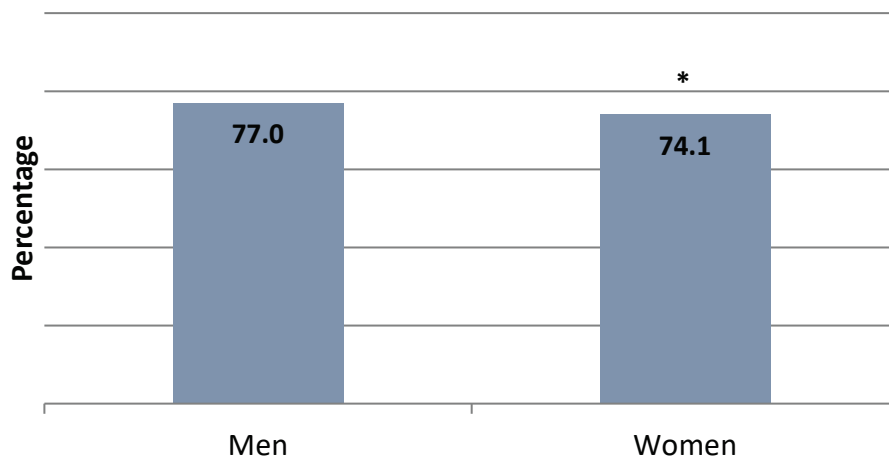
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Medication Adherence for Diabetes—Statins

Percentage of Medicare enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare Advantage plans nationwide.

#### Disparities

- Women with diabetes were less likely than men with diabetes to have had proper statin medication adherence. The difference between men and women was less than 3 percentage points.

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<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



### Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit whose BMI was documented in the past two years, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women were more likely than men to have had their BMIs documented. The difference between women and men was less than 3 percentage points.

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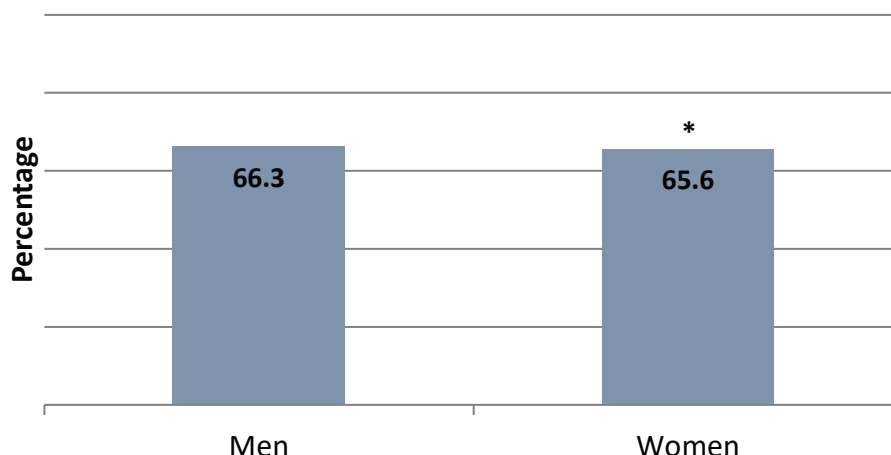
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who had a diagnosis of hypertension were less likely than men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

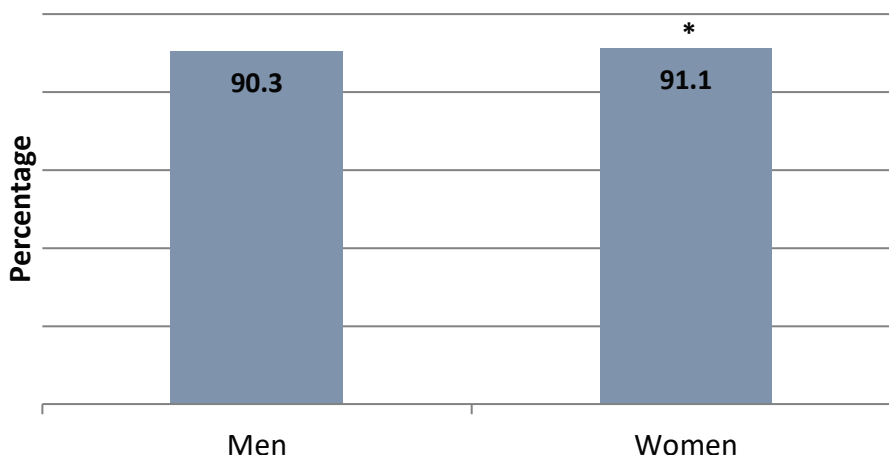
(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.

### Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (heart attack) who received persistent beta-blocker treatment for 6 months after discharge, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were hospitalized for a heart attack were more likely than men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between women and men was less than 3 percentage points.

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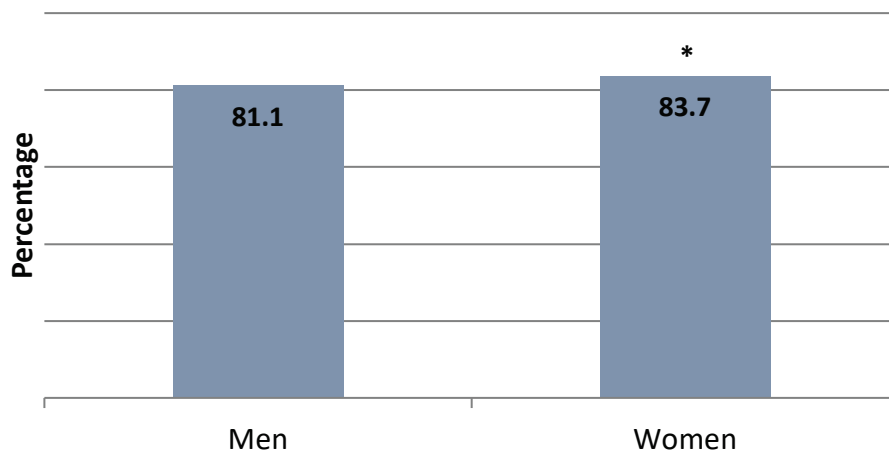
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Asthma Medication Ratio in Older Adults

Percentage of Medicare enrollees aged 65 to 85 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the past year, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from MA plans nationwide.

#### Disparities

- Older women with persistent asthma were more likely than older men with persistent asthma to have had appropriate asthma medication management during the past year. The difference between women and men was less than 3 percentage points.

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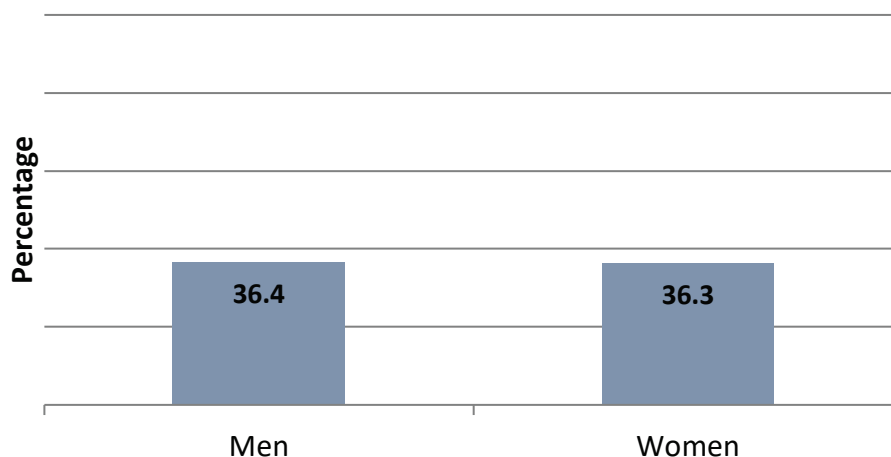
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by gender, 2017



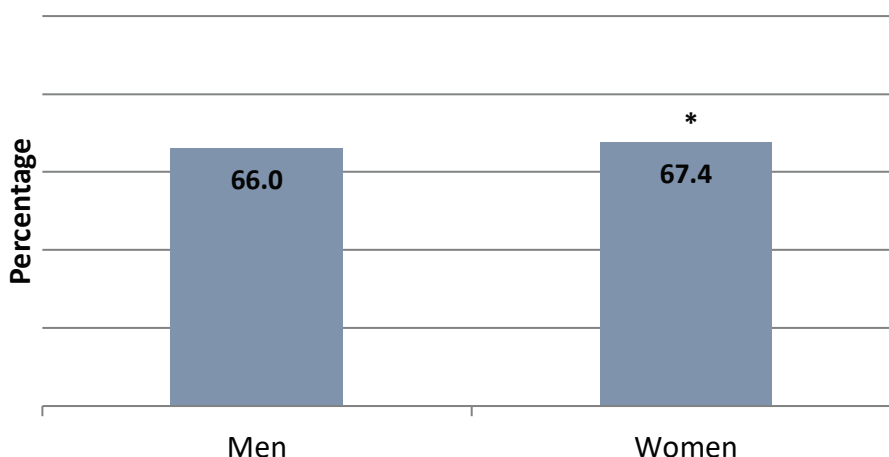
**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women with a new diagnosis of COPD or newly active COPD were about as likely as men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid

Percentage of COPD exacerbations for MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year in which a systemic corticosteroid was dispensed within 14 days of the event, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between women and men was less than 3 percentage points.

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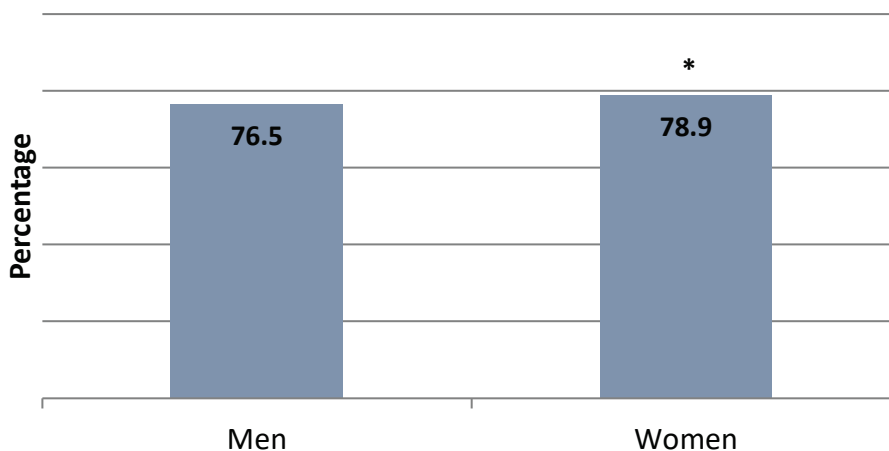
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were diagnosed with rheumatoid arthritis were more likely than men who were diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

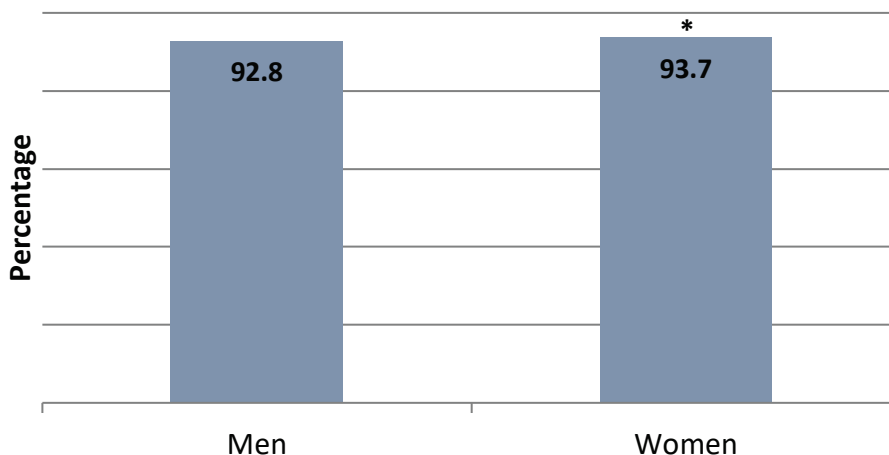
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

**Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year who also had at least one therapeutic monitoring event for the therapeutic agent, by gender, 2017**



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women were more likely than men to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

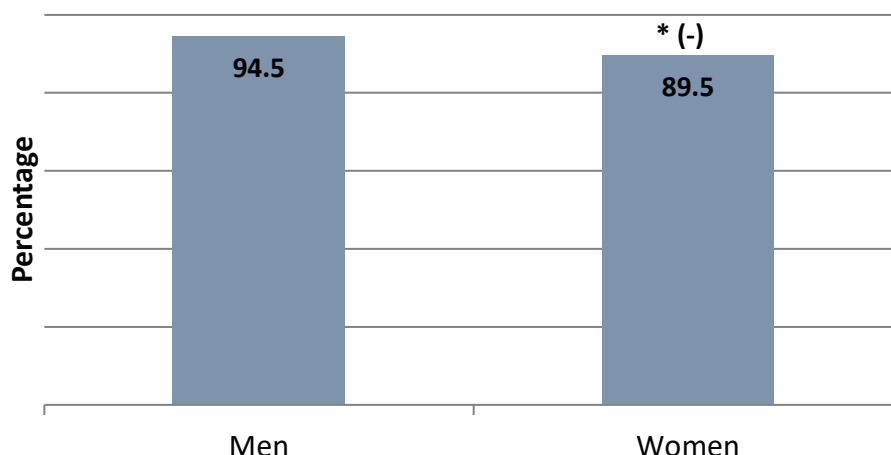
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for 6 months or longer: ACE inhibitors, ARBs, digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2017 data, it was observed that this standard of care was met less often for women than for men. The difference between women and men was greater than 3 percentage points.

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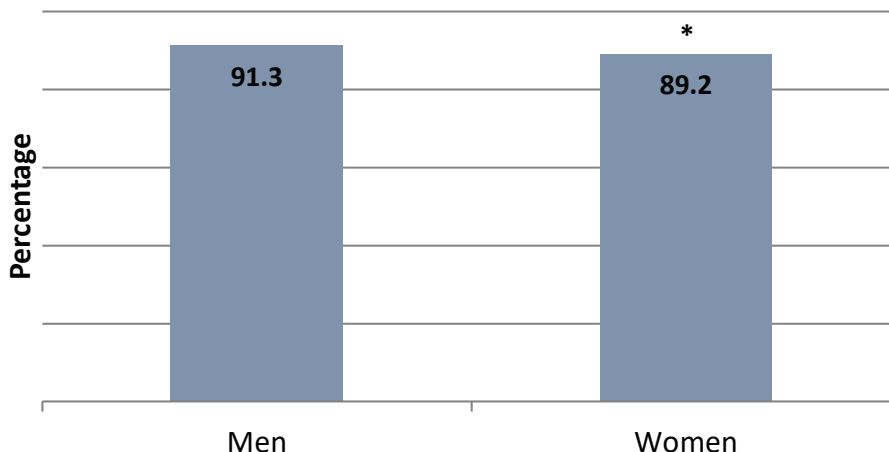
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with chronic renal failure. In the 2017 data, it was observed that this standard of care was met less often for elderly women with chronic renal failure than for elderly men with chronic renal failure. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

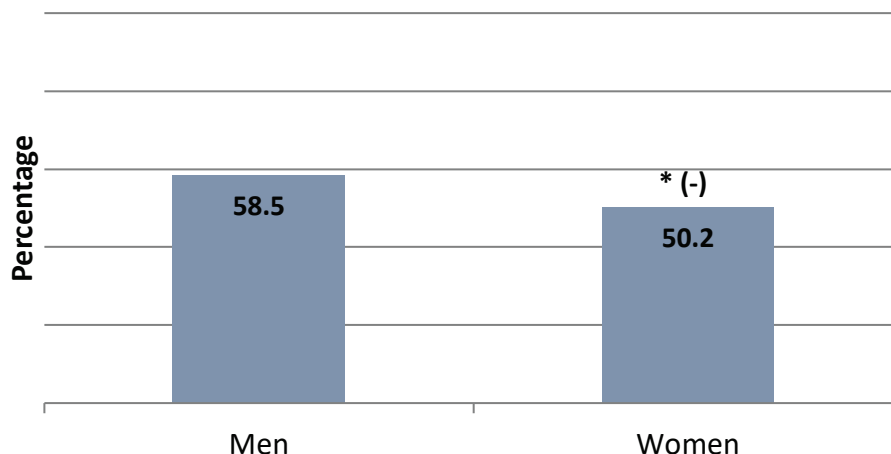
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes COX-2 selective NSAIDs or nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with dementia. In the 2017 data, it was observed that this standard of care was met less often for elderly women with dementia than for elderly men with dementia. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

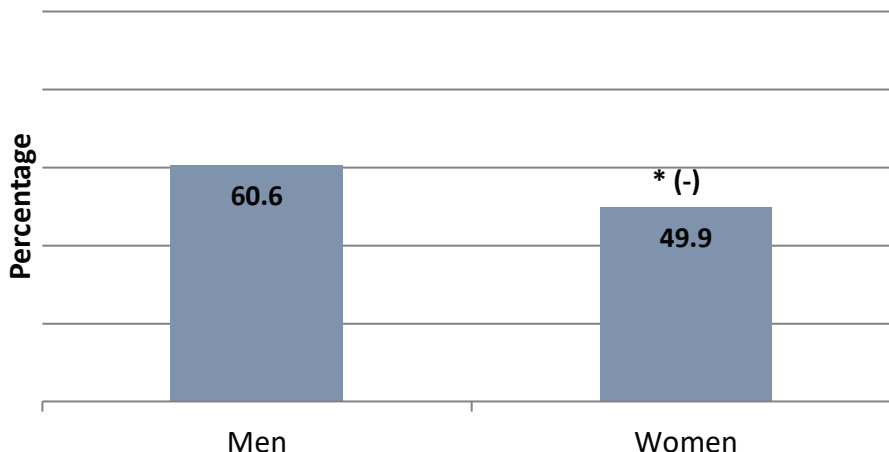
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2017 data, it was observed that this standard of care was met less often for elderly women with a history of falls than for elderly men with a history of falls. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

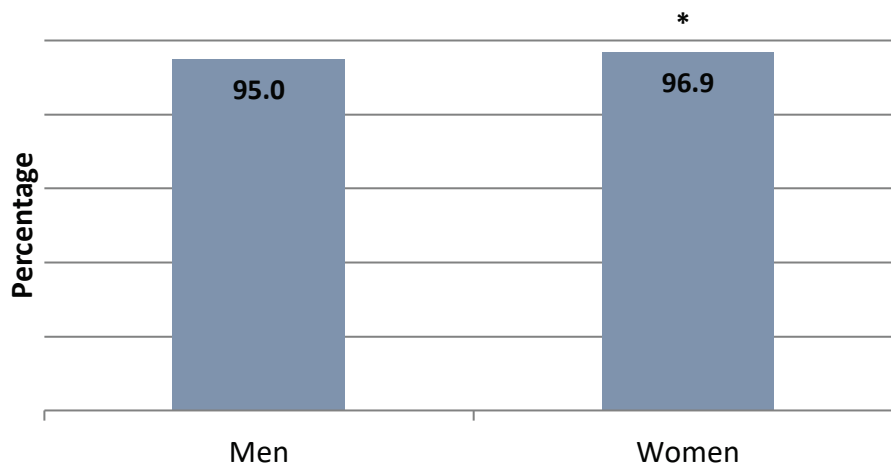
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, SSRIs, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women were more likely than men to have had an ambulatory or preventive care visit. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Medication Reconciliation After Hospital Discharge

Percentage of Medicare enrollees aged 18 years and older who were discharged from an inpatient facility and had their medications reconciled within 30 days, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from MA plans nationwide.

#### Disparities

- Women who were discharged from an inpatient facility were less likely than men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for men ( $p < 0.05$ ).

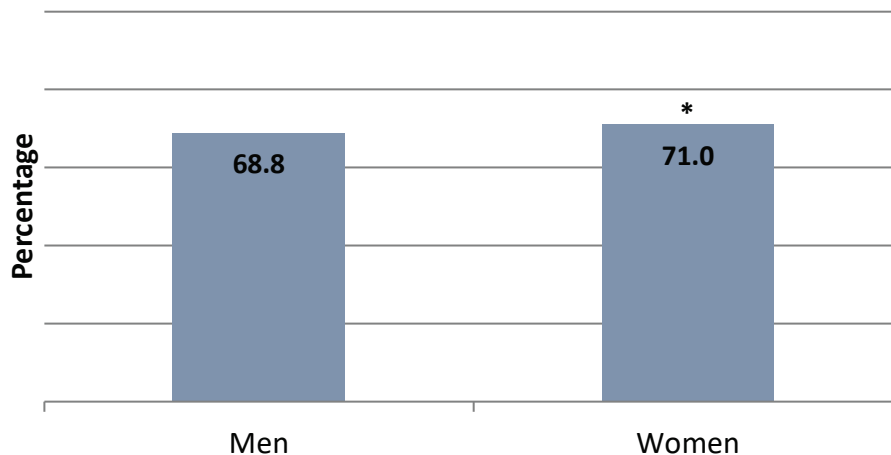
For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression who remained on antidepressant medication for at least 84 days, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

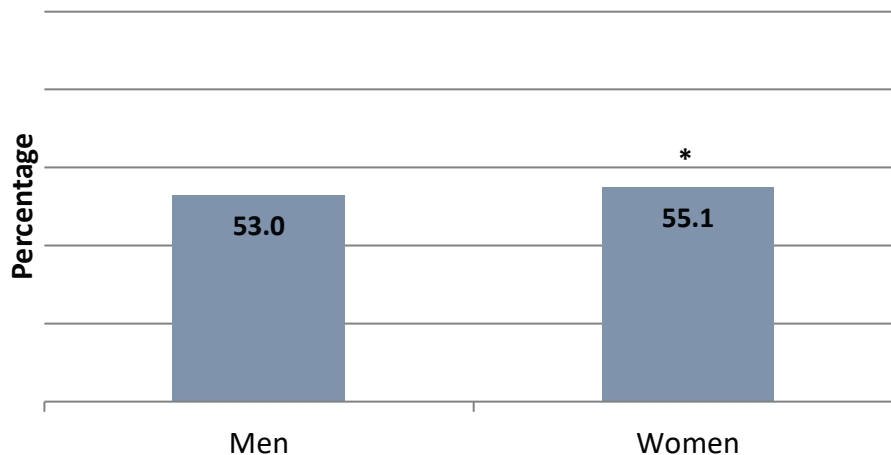
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.



### Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment

Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on an antidepressant medication treatment for at least 180 days, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have been treated with and to have remained on antidepressant medication for at least 180 days. The difference between women and men was less than 3 percentage points.

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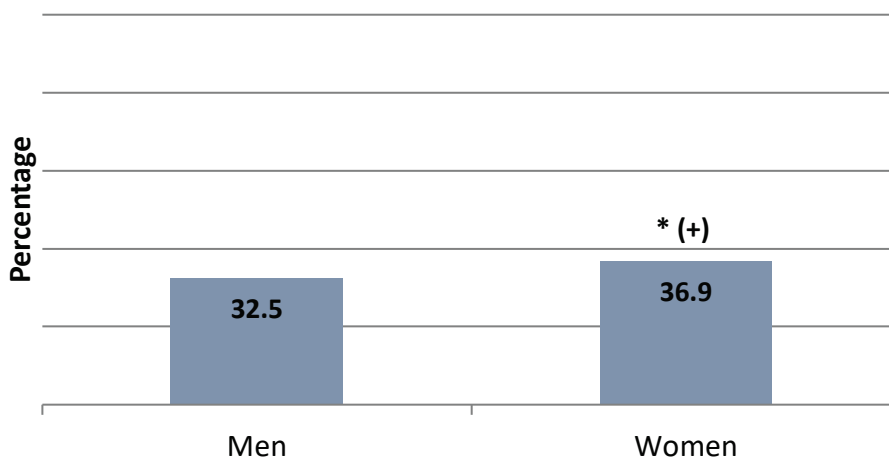
\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors women.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

### Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 7 days of discharge, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of being discharged. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

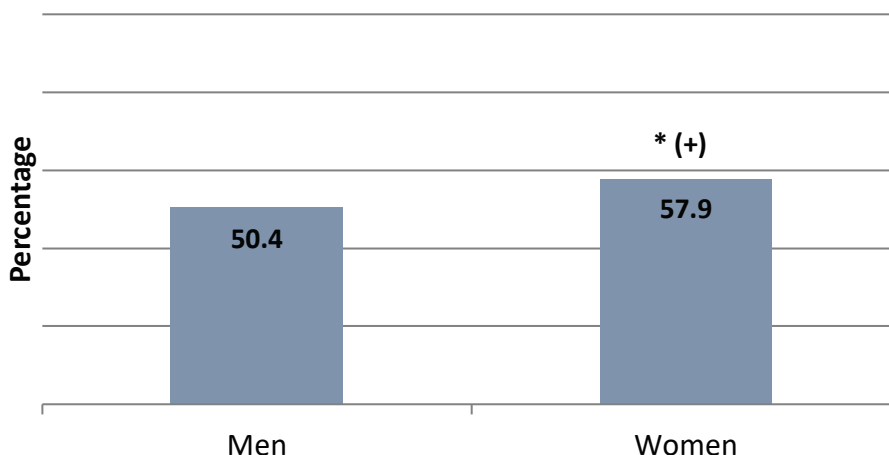
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

### Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

#### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had appropriate follow-up care within 30 days of discharge. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

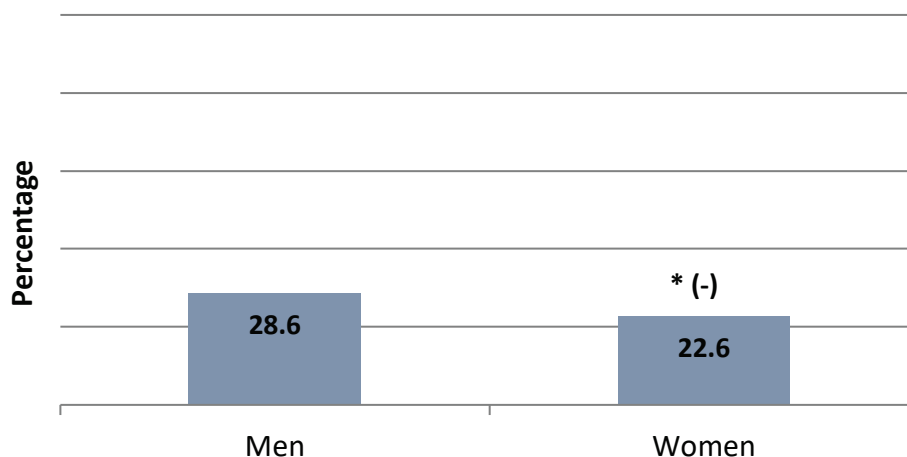
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(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women with a new episode of AOD dependence were less likely than men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between women and men was greater than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

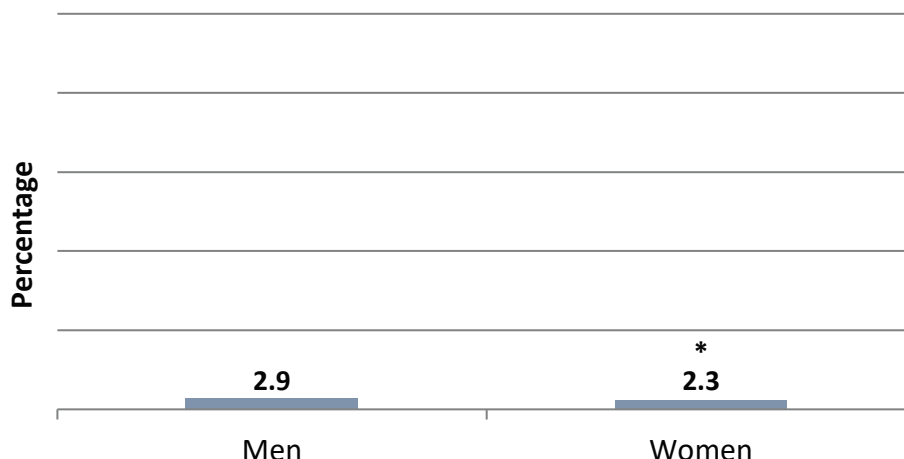
(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

### Disparities

- Women with a new episode of AOD dependence who initiated treatment were less likely than men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. The difference between women and men was less than 3 percentage points.

---

\* Significantly different from the score for men ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors women.

(-) Difference is equal to or larger than 3 points (before rounding) and favors men.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

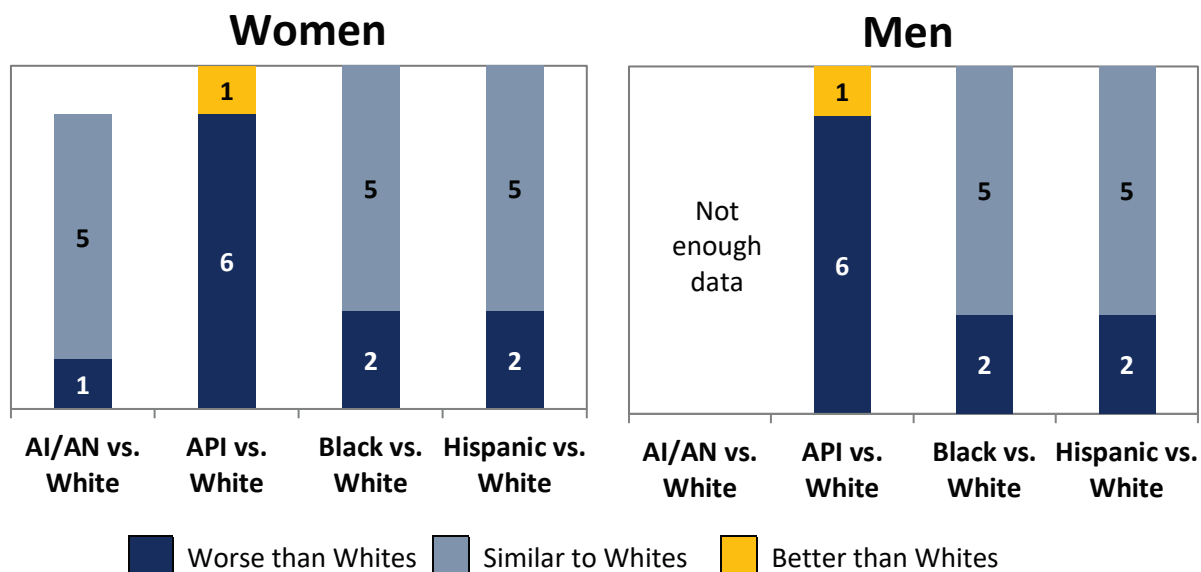


## **Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage**



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 7) for which women/men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women/men in 2017



**SOURCE:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2017 Medicare CAHPS survey.

**NOTES:** AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races. There were not enough data from AI/AN men to compare their patient experiences to those of White men. For one patient experience measure, there were not enough data from AI/AN women to permit a comparison to White women.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### AI/AN women received worse care than White women

- Getting appointments and care quickly

### API women received worse care than White women

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API women received better care than White women**

- Annual flu vaccine

**Black women received worse care than White women**

- Getting appointments and care quickly
- Annual flu vaccine

**Hispanic women received worse care than White women**

- Getting appointments and care quickly
- Annual flu vaccine

**API men received worse care than White men**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs

**API men received better care than White men**

- Annual flu vaccine

**Black men received worse care than White men**

- Getting appointments and care quickly
- Annual flu vaccine

**Hispanic men received worse care than White men**

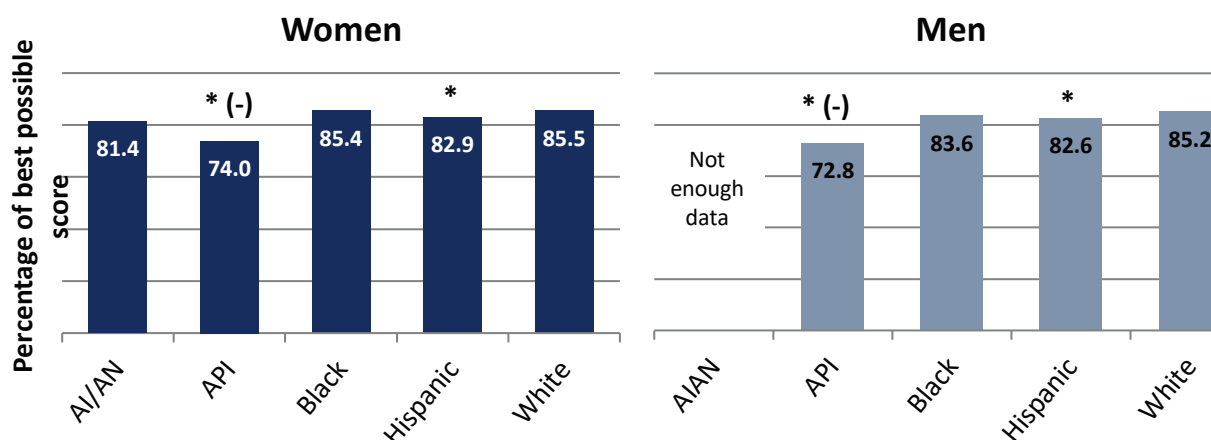
- Getting appointments and care quickly
- Annual flu vaccine



## Patient Experience

### Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- API and Hispanic women reported worse<sup>††</sup> experiences getting needed care than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. The difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences with getting needed care that were similar to the experiences reported by White women.
- API and Hispanic men reported worse experiences getting needed care than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale. The difference between Hispanic and White men was less than 3 points on a 0–100 scale. Black men reported experiences with getting needed care that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

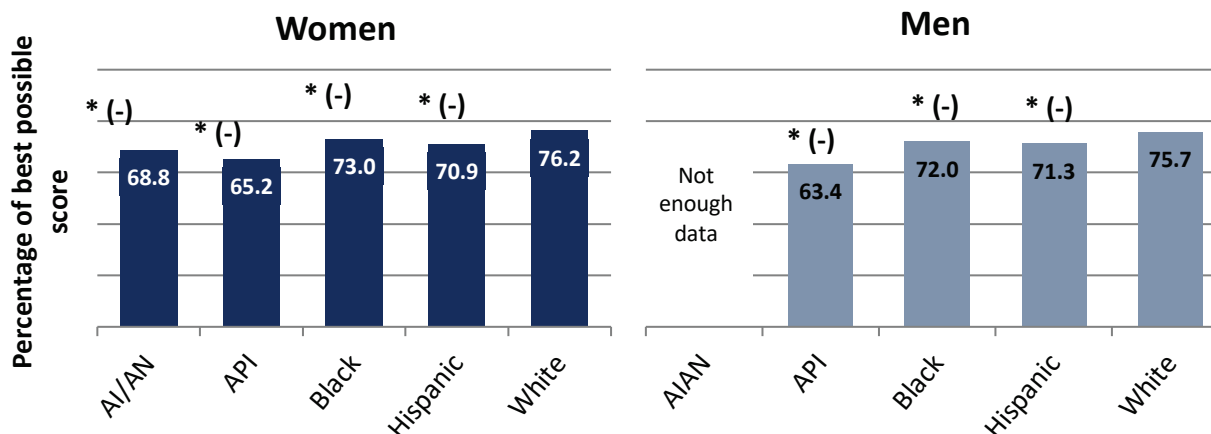
(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months patients got appointments with specialists as soon as they needed them and how easy it was to get needed care, tests, or treatment.

<sup>††</sup> Unlike on the previous two pages, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- AI/AN, API, Black, and Hispanic women reported worse experiences getting appointments and care quickly than White women reported. In each case, the difference was greater than 3 points on a 0–100 scale.
- API, Black, and Hispanic men reported worse experiences getting appointments and care quickly than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

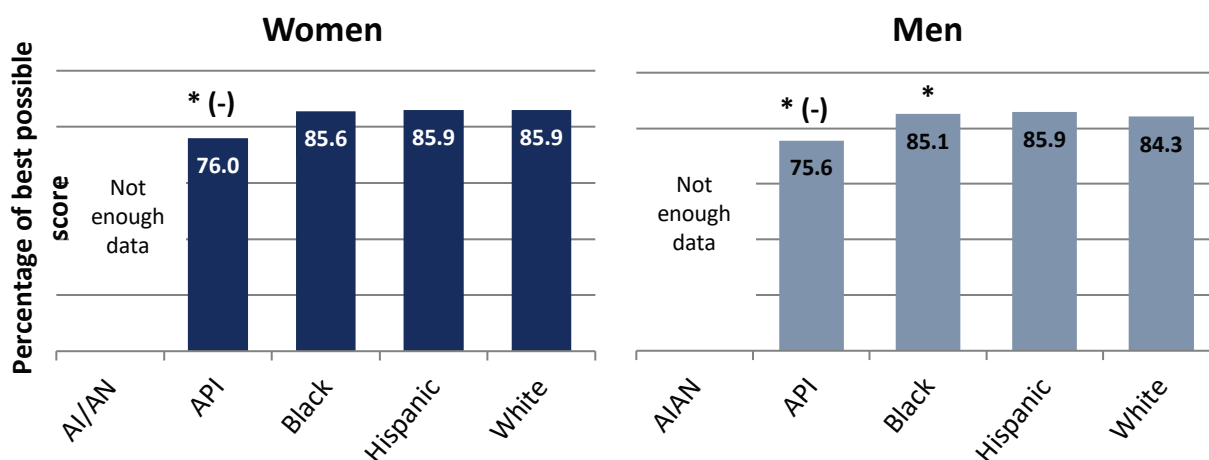
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months patients got care that was needed right away, as well as how easy it was to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men or for AI/AN women.

### Disparities

- API women reported worse experiences with customer service than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with customer service that were similar to the experiences reported by White women.
- API men reported worse experiences with customer service than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale. Black men reported better experiences with customer service than White men. The difference between Black and White men was less than 3 points on a 0–100 scale. Hispanic men reported experiences with customer service that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

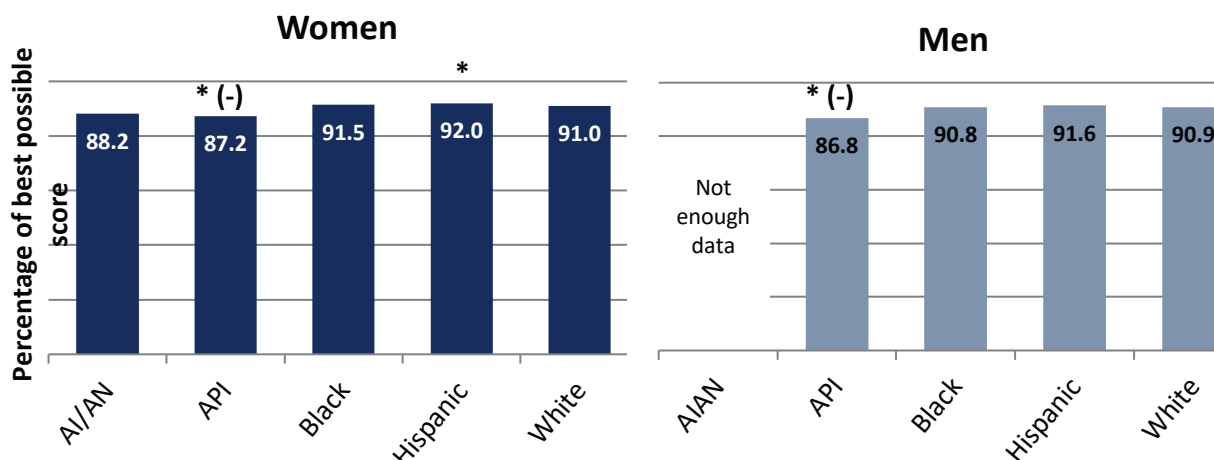
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months health plan customer service staff provided the information or help that beneficiaries needed, how often beneficiaries were treated with courtesy and respect, and how often forms from the health plan were easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- API women reported worse doctor communication than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. Hispanic women reported better doctor communication than White women reported. The difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences with doctor communication that were similar to the experiences reported by White women.
- API men reported worse doctor communication than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with doctor communication that were similar to the experiences reported by White men.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

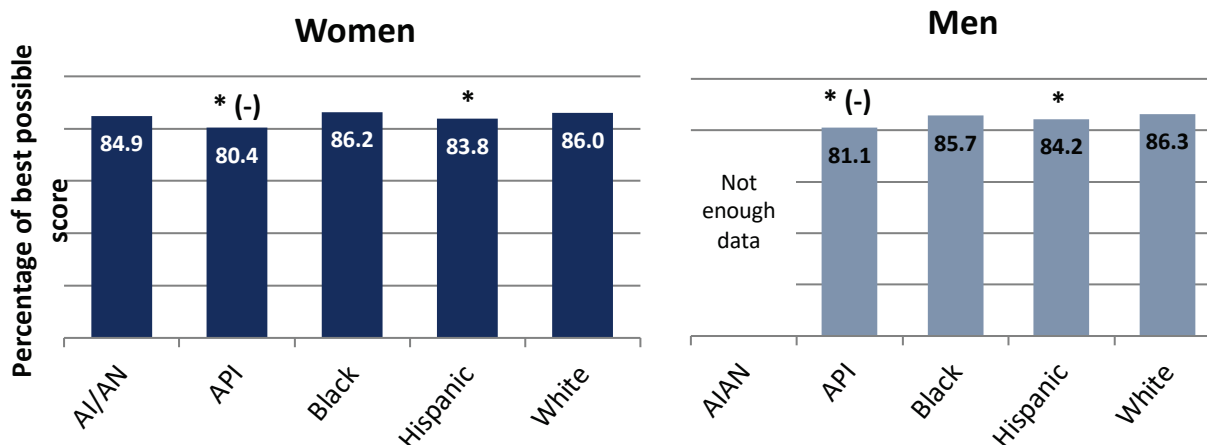
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months doctors explained things in a way that was easy to understand, listened carefully, showed respect for what patients had to say, and spent time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care was coordinated,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- API and Hispanic women reported worse experiences with care coordination than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale; the difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences with care coordination that were similar to the experiences reported by White women.
- API and Hispanic men reported worse care coordination than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale; the difference between Hispanic and White men was less than 3 points on a 0–100 scale. Black men reported experiences with care coordination that were similar to the experiences reported by White men.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

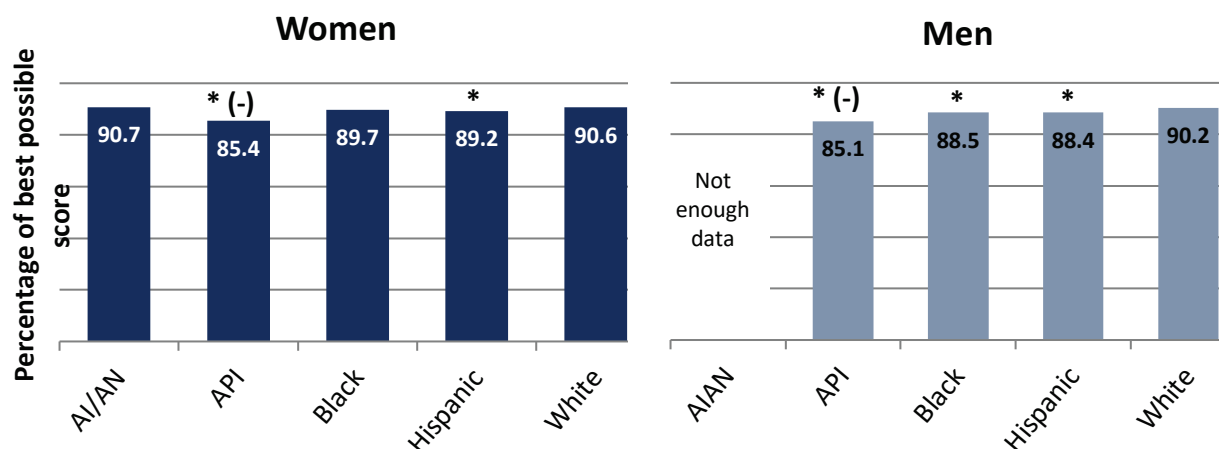
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months doctors had medical records and other information about patients' care at patients' scheduled appointments and how quickly patients received their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- API and Hispanic women reported worse experiences getting needed prescription drugs than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale; the difference between Hispanic and White women was less than 3 points on a 0–100 scale. AI/AN and Black women reported experiences getting needed prescription drugs that were similar to the experiences reported by White women.
- API, Black, and Hispanic men reported worse experiences getting needed prescription drugs than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale. The difference between Black and White men was less than 3 points on a 0–100 scale, as was the difference between Hispanic and White men.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

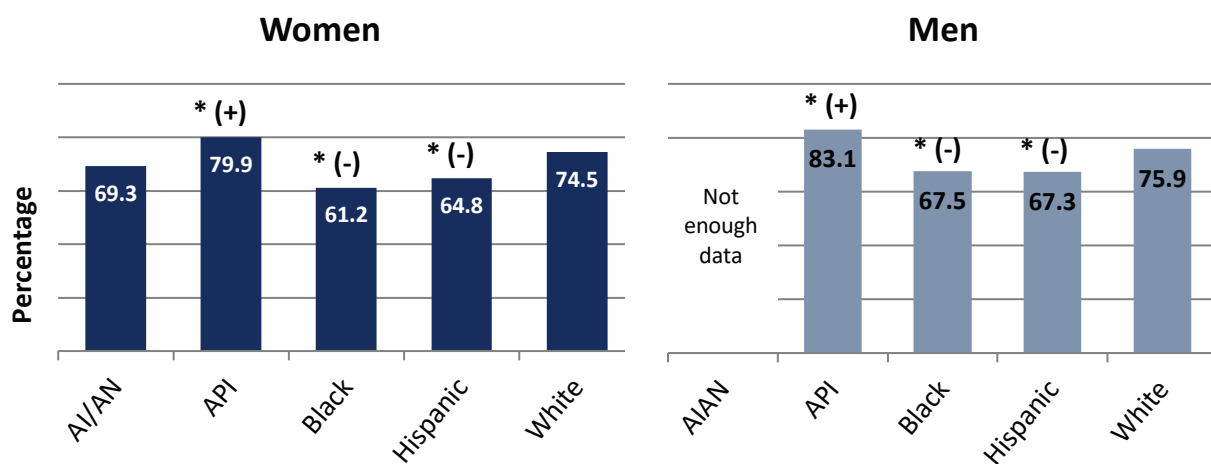
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes how often in the last 6 months it was easy to use the plan to get prescribed medications and how easy it was to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race and ethnicity within gender, 2017



**SOURCE:** Data from the Medicare CAHPS survey, 2017.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. There were not enough data to report a score on this measure for AI/AN men.

### Disparities

- API women were more likely than White women to have received the flu vaccine. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women were less likely than White women to have received the flu vaccine. In each case, the difference was greater than 3 percentage points. AI/AN women were about as likely as White women to have received the flu vaccine.
- API men were more likely than White men to have received the flu vaccine. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have received the flu vaccine. In each case, the difference was greater than 3 percentage points.

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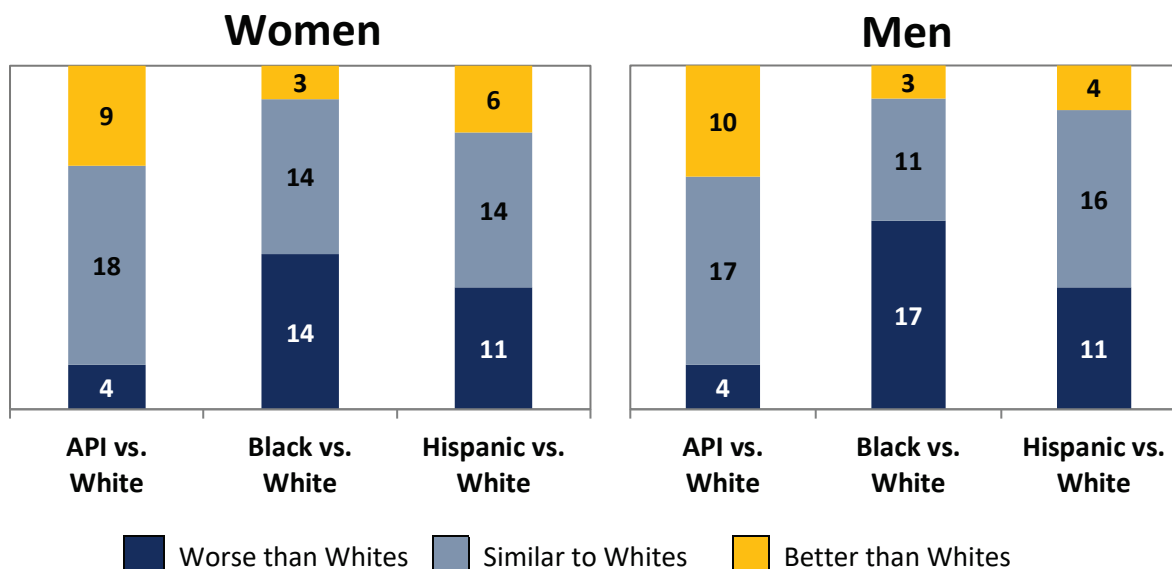
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 31) for which women/men of selected racial and ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2017



**SOURCE:** This chart summarizes clinical quality (HEDIS) data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial or ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude (Paddison et al., 2013).

### API women received worse care than White women

- Continuous beta-blocker treatment after a heart attack
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments



**API women received better care than White women**

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Avoiding use of high-risk medications in the elderly
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Medication reconciliation after hospital discharge

**Black women received worse care than White women**

- Colorectal cancer screening
- Diabetes care—blood sugar controlled
- Diabetes care—blood pressure controlled
- Medication adherence for diabetes—statins
- Controlling blood pressure
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Medication reconciliation after hospital discharge
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black women received better care than White women**

- Avoiding use of high-risk medications in the elderly
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic women received worse care than White women**

- Medication adherence for diabetes—statins
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**Hispanic women received better care than White women**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Statin use in patients with diabetes
- Medication reconciliation after hospital discharge
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**API men received worse care than White men**

- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**API men received better care than White men**

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Statin use in patients with diabetes
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Medication reconciliation after hospital discharge

**Black men received worse care than White men**

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood sugar controlled
- Diabetes care—blood pressure controlled
- Medication adherence for diabetes—statins
- Controlling blood pressure
- Statin use in patients with cardiovascular disease
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Rheumatoid arthritis management
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Medication reconciliation after hospital discharge
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black men received better care than White men**

- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Initiation of alcohol or other drug treatments

#### **Hispanic men received worse care than White men**

- Colorectal cancer screening
- Medication adherence for diabetes—statins
- Medication adherence for cardiovascular disease—statins
- Continuous beta-blocker treatment after a heart attack
- Asthma medication ratio in older adults
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

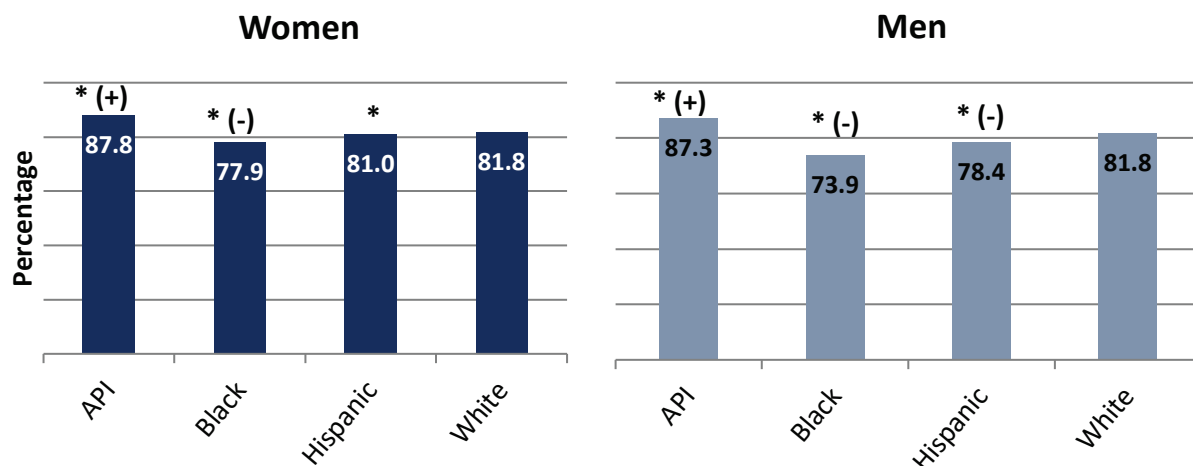
#### **Hispanic men received better care than White men**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Follow-up after hospital stay for mental illness (within 7 days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

## Clinical Care

### Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women were more likely than White women to have been appropriately screened for colorectal cancer. The difference between API and White women was greater than 3 percentage points. Black and Hispanic women were less likely than White women to have been appropriately screened for colorectal cancer. The difference between Black women and White women was greater than 3 percentage points; the difference between Hispanic and White women was less than 3 percentage points.
- API men were more likely than White men to have been appropriately screened for colorectal cancer. The difference between API and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have been appropriately screened for colorectal cancer. The difference between Black and White men was greater than 3 percentage points, as was the difference between Hispanic and White men.

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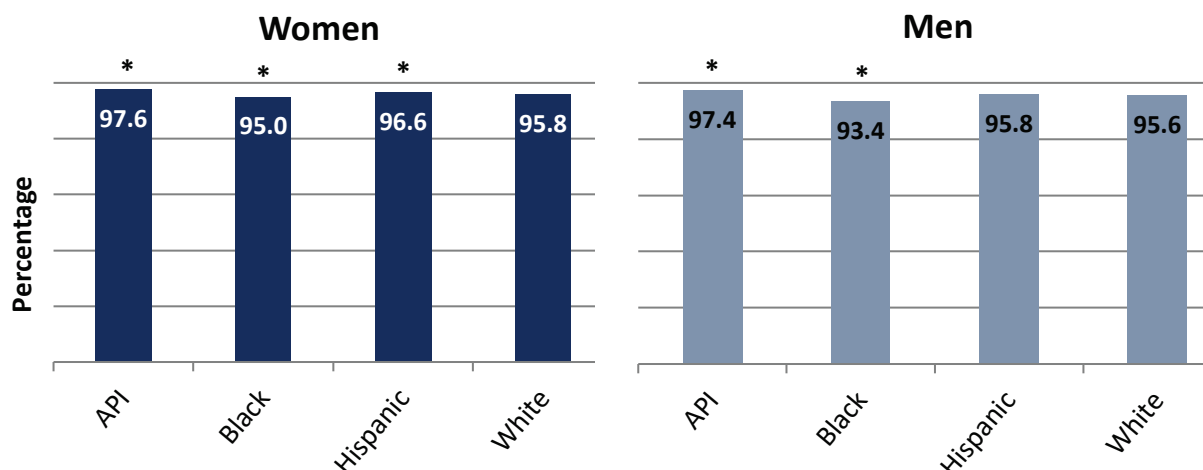
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had their blood sugar tested at least once in the past year. In each case, the difference was less than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between API and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black and White men was less than 3 percentage points. Hispanic men with diabetes were about as likely as White men with diabetes to have had their blood sugar tested at least once in the past year.

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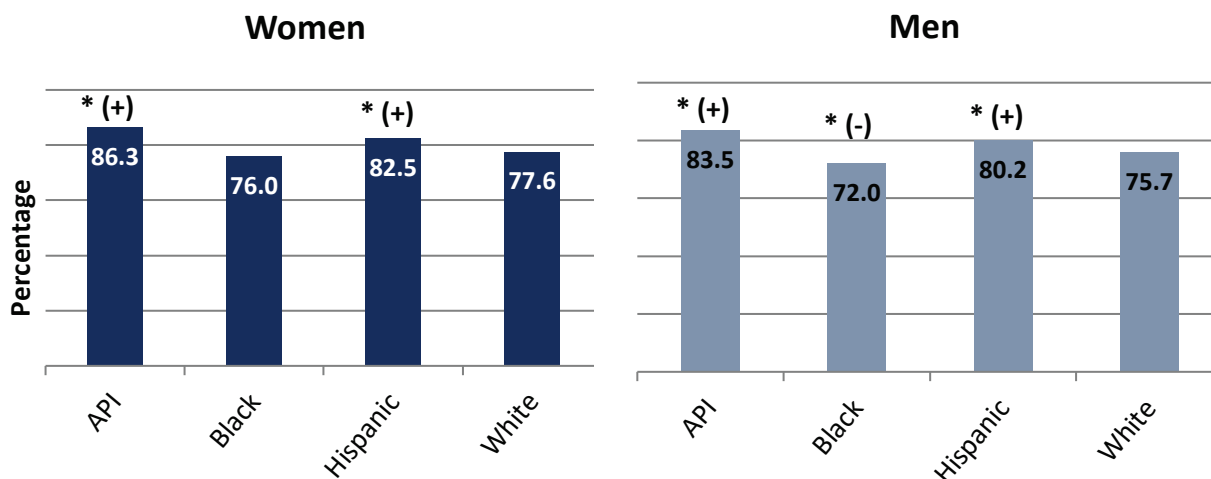
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had an eye exam in the past year. In each case, the difference was greater than 3 percentage points. Black women with diabetes were about as likely as White women with diabetes to have had an eye exam in the past year.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had an eye exam in the past year. In each case, the difference was greater than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had an eye exam in the past year. The difference between Black men and White men was greater than 3 percentage points.

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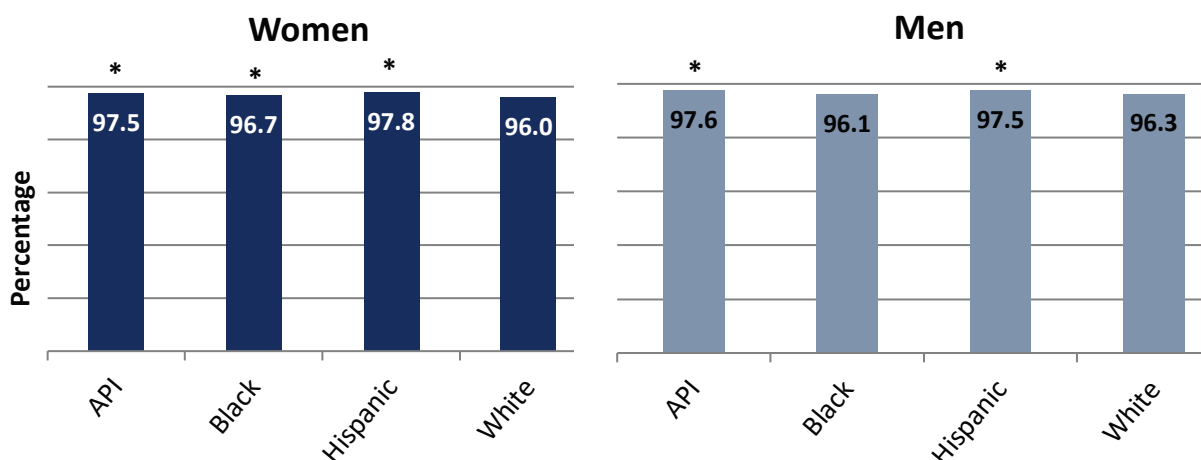
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points. Black men with diabetes were about as likely as White men with diabetes to have had medical attention for nephropathy in the past year.

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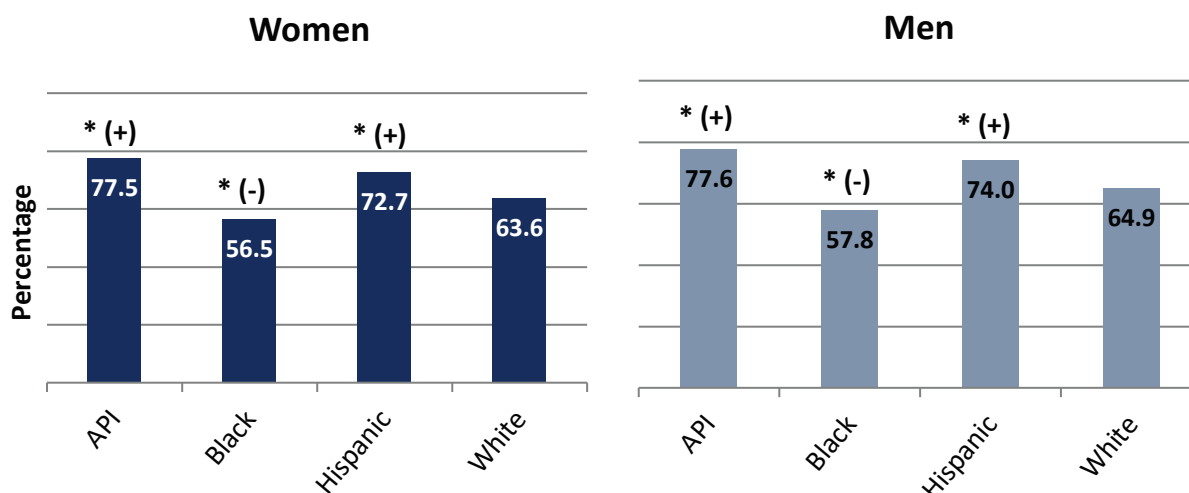
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood pressure under control. In each case, the difference was greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have their blood pressure under control. The difference between Black and White women was greater than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood pressure under control. In each case the difference was greater than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have their blood pressure under control. The difference between Black and White men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

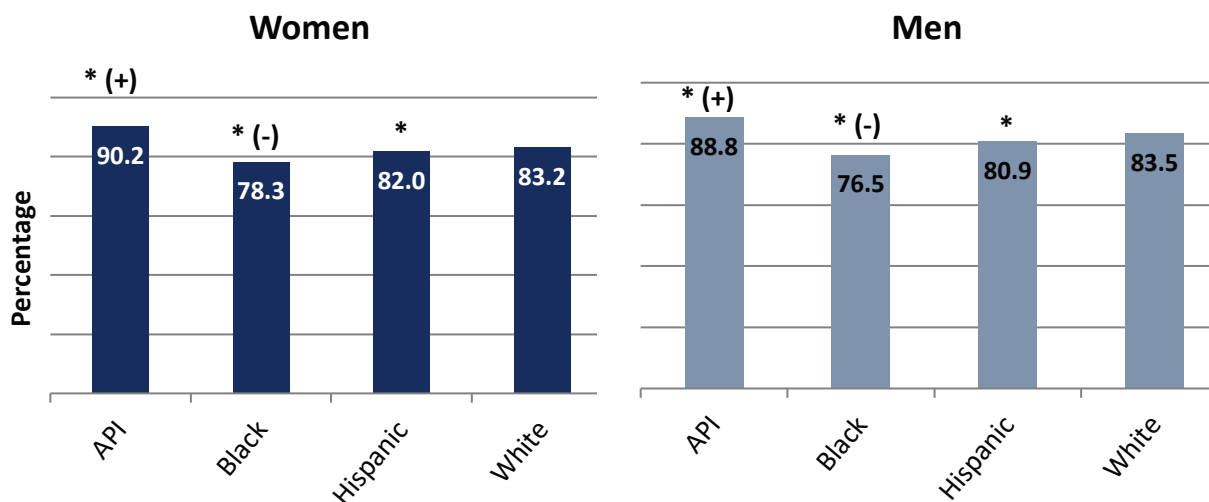
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



## Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women with diabetes were more likely than White women with diabetes to have their blood sugar levels under control. The difference between API and White women was greater than 3 percentage points. Black and Hispanic women with diabetes were less likely than White women with diabetes to have their blood sugar levels under control. The difference between Black and White women was greater than 3 percentage points. The difference between Hispanic and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have their blood sugar levels under control. The difference between API and White men was greater than 3 percentage points. Black and Hispanic men with diabetes were less likely than White men with diabetes to have their blood sugar levels under control. The difference between Black and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points.

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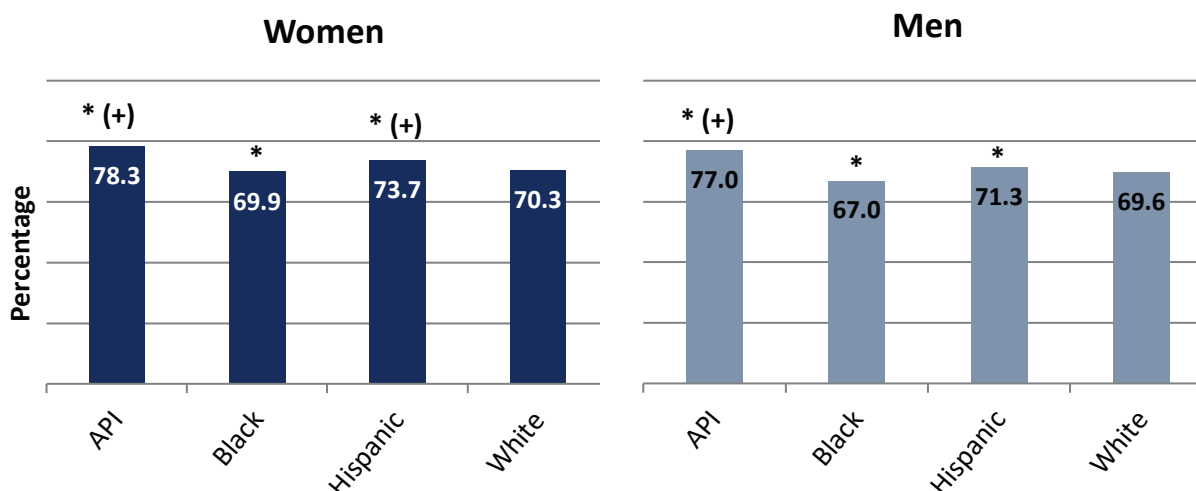
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Statin Use in Patients with Diabetes

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who received statin therapy, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have received statin therapy. The difference between API and White women was greater than 3 percentage points; the difference between Hispanic and White women was also greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have received statin therapy. The difference between Black and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have received statin therapy. The difference between API and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have received statin therapy. The difference between Black and White men was less than 3 percentage points.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

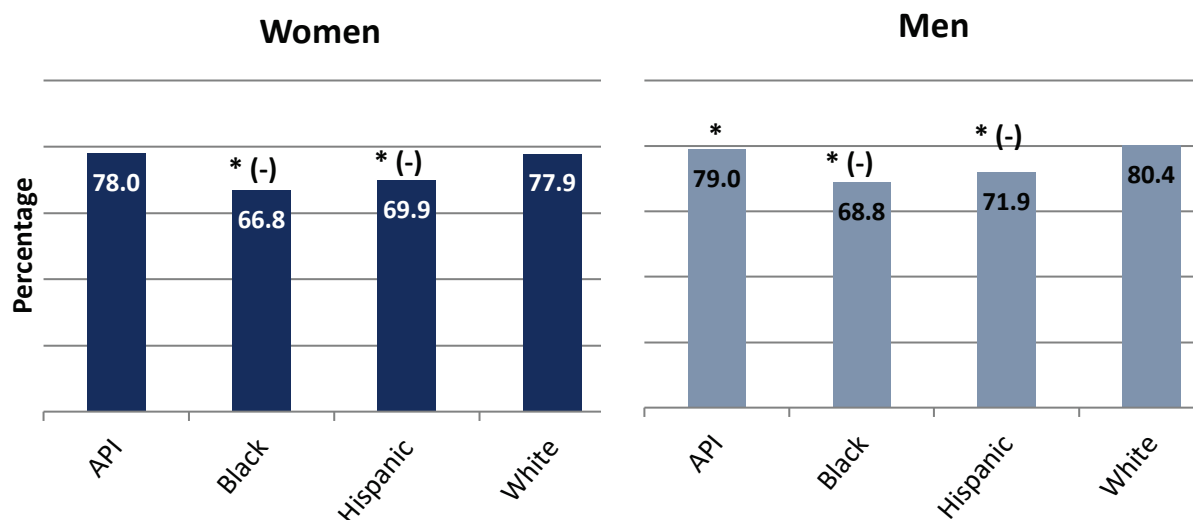
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Medication Adherence for Diabetes—Statins

Percentage of MA enrollees aged 40 to 75 years with diabetes (type 1 and type 2)<sup>†</sup> who were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women with diabetes were less likely than White women with diabetes to have had proper statin medication adherence. The difference between Black and White women was greater than 3 percentage points, as was the difference between Hispanic and White women. API women with diabetes were about as likely as White women with diabetes to have had proper statin medication adherence.
- API, Black, and Hispanic men with diabetes were less likely than White men with diabetes to have had proper statin medication adherence. The difference between API and White men was less than 3 percentage points. The difference between Black and White men was greater than 3 percentage points; the difference between Hispanic and White men was also greater than 3 percentage points.

<sup>†</sup> Excludes those who also have clinical atherosclerotic cardiovascular disease.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

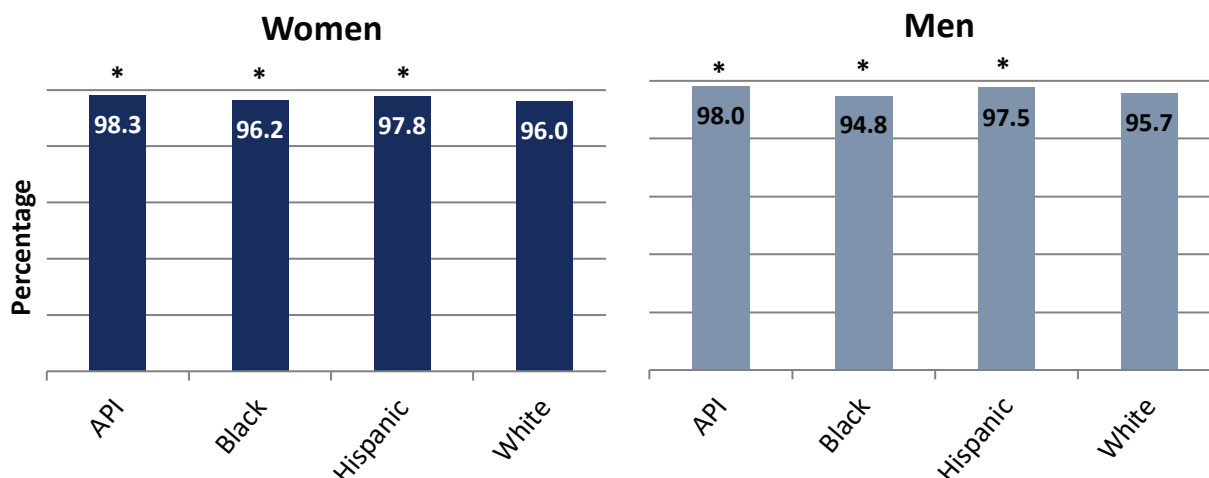
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit whose BMI was documented in the past two years, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- API, Black, and Hispanic women were more likely than White women to have had their BMIs documented. In each case, the difference was less than 3 percentage points.
- Whereas API and Hispanic men were more likely than White men to have had their BMIs documented, Black men were less likely than White men to have had their BMIs documented. In each case, the difference was less than 3 percentage points.

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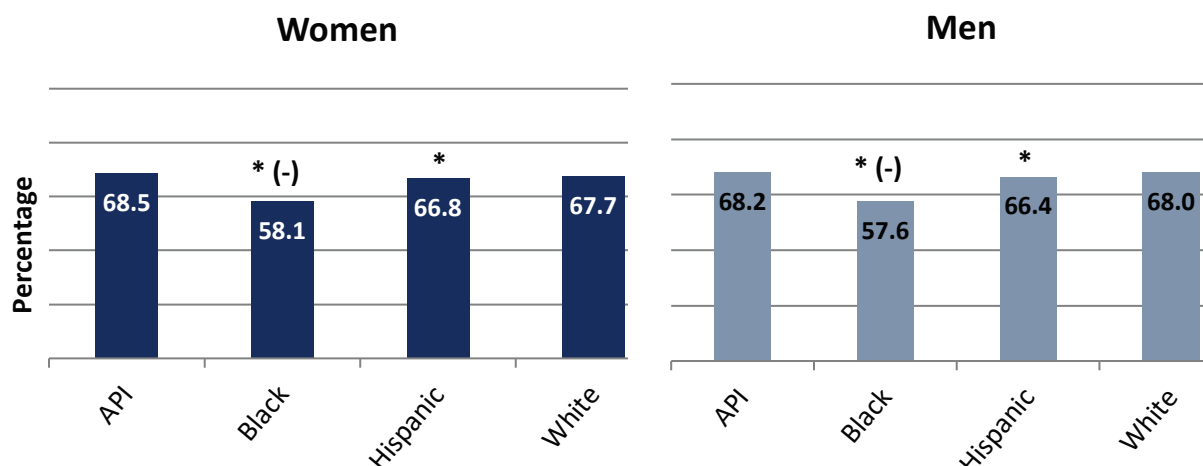
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years who had a diagnosis of hypertension whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women with a diagnosis of hypertension were less likely than White women with a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black and White women was greater than 3 percentage points; the difference between Hispanic and White women was less than 3 percentage points. API women with a diagnosis of hypertension were about as likely as White women with a diagnosis of hypertension to have had their blood pressure adequately controlled.
- Black and Hispanic men with a diagnosis of hypertension were less likely than White men with a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black and White men was greater than 3 percentage points; the difference between Hispanic and White men was less than 3 percentage points. API men with a diagnosis of hypertension were about as likely as White men with a diagnosis of hypertension to have had their blood pressure adequately controlled.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

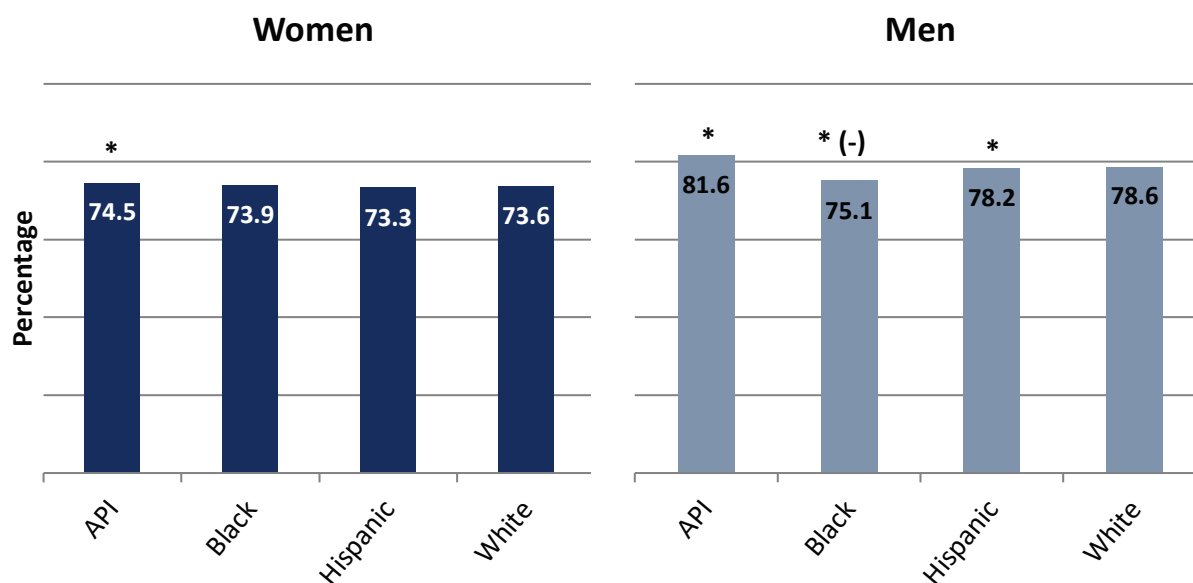
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.

## Clinical Care: Statin Use in Patients with Cardiovascular Disease

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years who have clinical atherosclerotic cardiovascular disease (ASCVD) who received statin therapy, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women with ASCVD were more likely than White women with ASCVD to have received statin therapy. The difference between API and White women was less than 3 percentage points. Black and Hispanic women with ASCVD were about as likely as White women with ASCVD to have received statin therapy.
- API men with ASCVD were more likely than White men with ASCVD to have received statin therapy. The difference between API and White men was less than 3 percentage points. Black and Hispanic men with ASCVD were less likely than White men with ASCVD to have received statin therapy. The difference between Black and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points.

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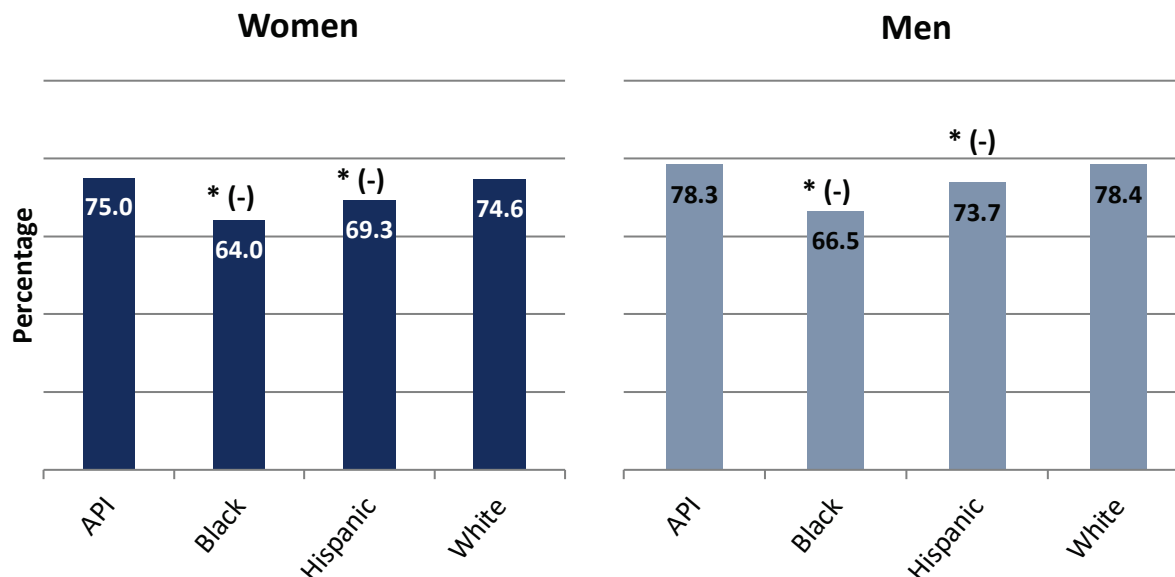
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Medication Adherence for Cardiovascular Disease—Statins

Percentage of male MA enrollees aged 21 to 75 years and female MA enrollees aged 40 to 75 years who had clinical atherosclerotic cardiovascular disease (ASCVD) and were dispensed a statin medication during the measurement year who remained on the medication for at least 80 percent of the treatment period, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women with ASCVD were less likely than White women with ASCVD to have had proper statin medication adherence. The difference between Black and White women was greater than 3 percentage points; the difference between Hispanic and White women was also greater than 3 percentage points. API women with ASCVD were about as likely as White women with ASCVD to have had proper statin medication adherence.
- Black and Hispanic men with ASCVD were less likely than White men with ASCVD to have had proper statin medication adherence. The difference between Black and White men was greater than 3 percentage points; the difference between Hispanic and White men was also greater than 3 percentage points. API men with ASCVD were about as likely as White men with ASCVD to have had proper statin medication adherence.

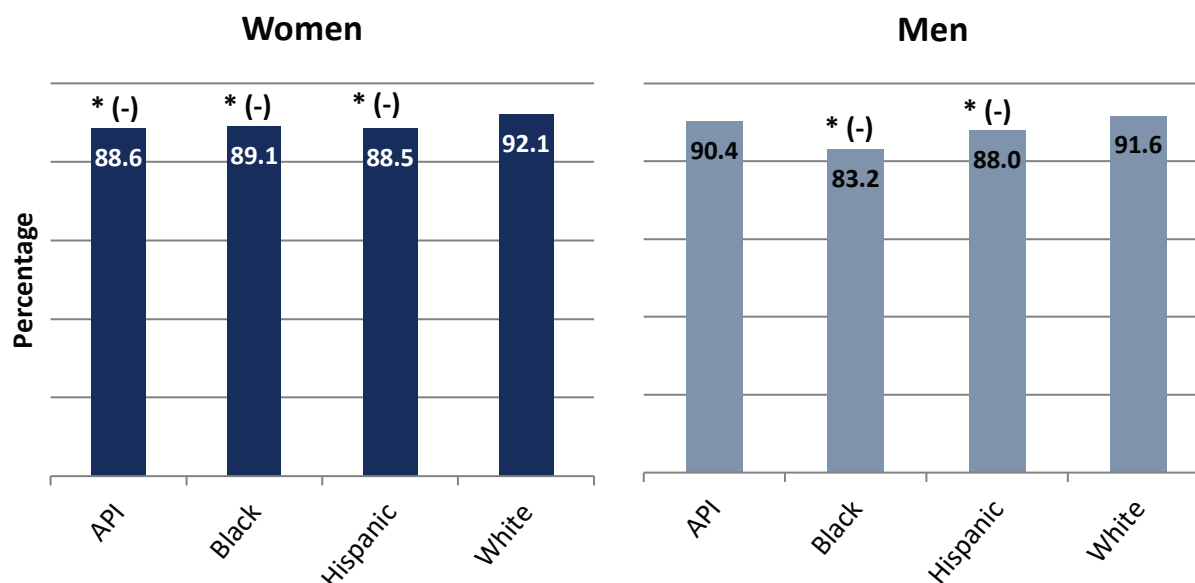
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (heart attack) who received persistent beta-blocker treatment for 6 months after discharge, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women who were hospitalized for a heart attack were less likely than White women who were hospitalized for a heart attack to have received persistent beta-blocker treatment. In each case, the difference was greater than 3 percentage points.
- Black and Hispanic men who were hospitalized for a heart attack were less likely than White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. In each case, the difference was greater than 3 percentage points. API men who were hospitalized for a heart attack were about as likely as White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

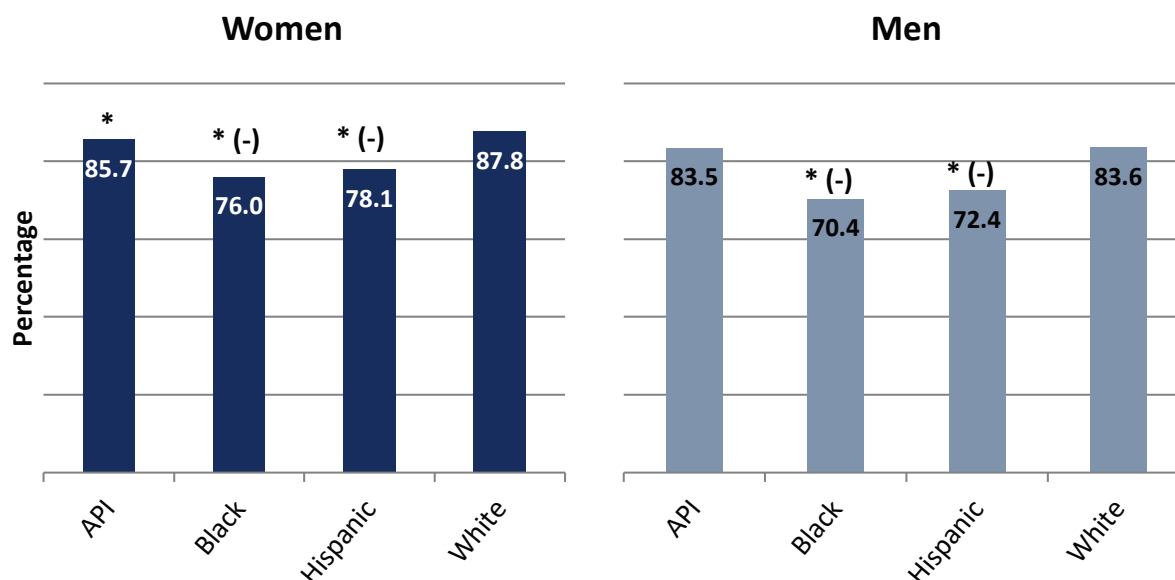
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.



### Clinical Care: Asthma Medication Ratio in Older Adults

Percentage of MA enrollees aged 65 to 85 years who were identified as having persistent asthma and had a ratio of controller medications to total asthma medications of 0.50 or greater during the past year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- API, Black, and Hispanic older women with persistent asthma were less likely than White older women with persistent asthma to have had appropriate asthma medication management during the past year. The difference between API and White women was less than 3 percentage points. The difference between Black and White women was greater than 3 percentage points; the difference between Hispanic and White women was also greater than 3 percentage points.
- Black and Hispanic older men with persistent asthma were less likely than White older men with persistent asthma to have had appropriate asthma medication management during the past year. In each case, the difference was greater than 3 percentage points. API older men with persistent asthma were about as likely as White men with persistent asthma to have had appropriate asthma medication management during the past year.

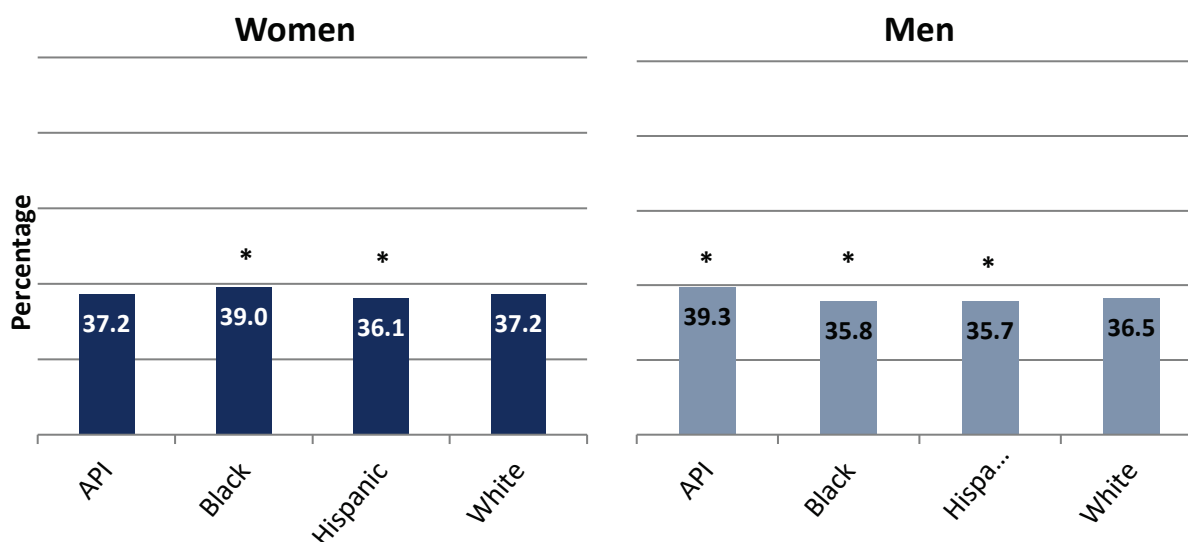
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

### Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received a spirometry test to confirm the diagnosis, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

#### Disparities

- Black women with a new diagnosis of COPD or newly active COPD were more likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. This difference was less than 3 percentage points. Hispanic women with a new diagnosis of COPD or newly active COPD were less likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. This difference was also less than 3 percentage points. API women with a new diagnosis of COPD or newly active COPD were about as likely as White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.
- API men with a new diagnosis of COPD or newly active COPD were more likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis, whereas Black and Hispanic men with a new diagnosis of COPD or newly active COPD were less likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. In each case, the difference was less than 3 percentage points.

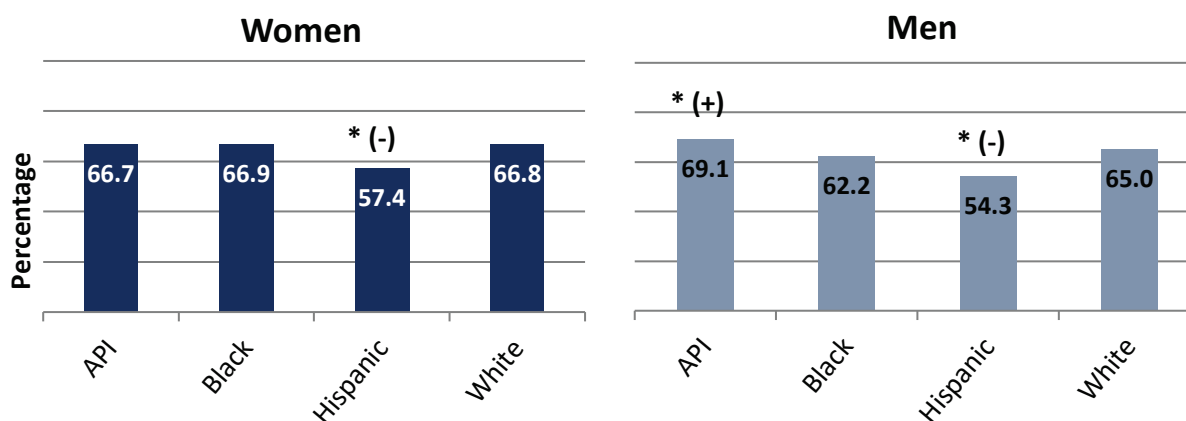
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation Systemic Corticosteroid

Percentage of COPD exacerbations for MA enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year in which a systemic corticosteroid was dispensed within 14 days of the event, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Hispanic and White women was greater than 3 percentage points. API and Black women who experienced a COPD exacerbation were about as likely as White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event.
- API men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between API and White men was greater than 3 percentage points. Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Hispanic and White men was greater than 3 percentage points. Black men who experienced a COPD exacerbation were about as likely as White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event.

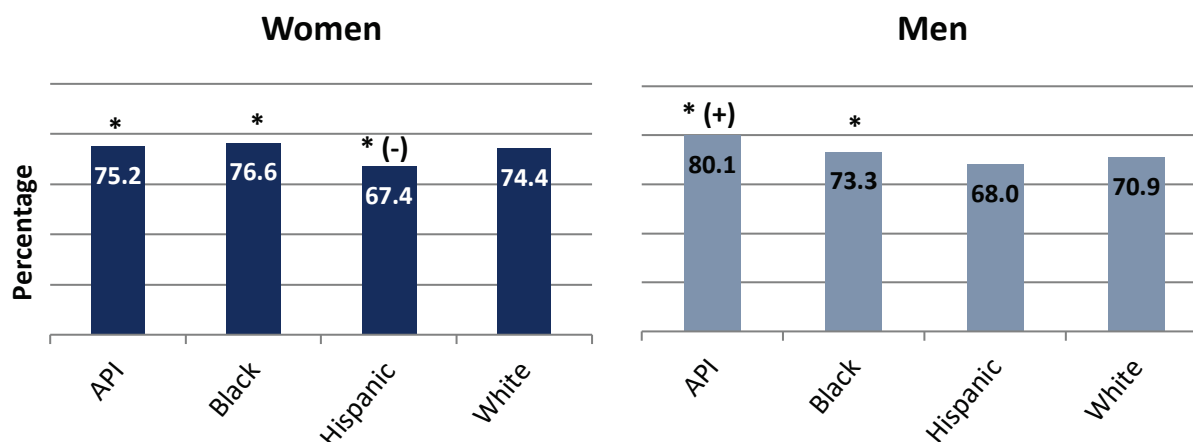
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation Bronchodilator

**Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year who were dispensed a bronchodilator within 30 days of experiencing the event, by race and ethnicity within gender, 2017**



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Black women who experienced a COPD exacerbation were more likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. In each case, the difference was less than 3 percentage points. Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanic and White women was greater than 3 percentage points.
- API and Black men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between API and White men was greater than 3 percentage points; the difference between Black and White men was less than 3 percentage points. Hispanic men who experienced a COPD exacerbation were about as likely as White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event.

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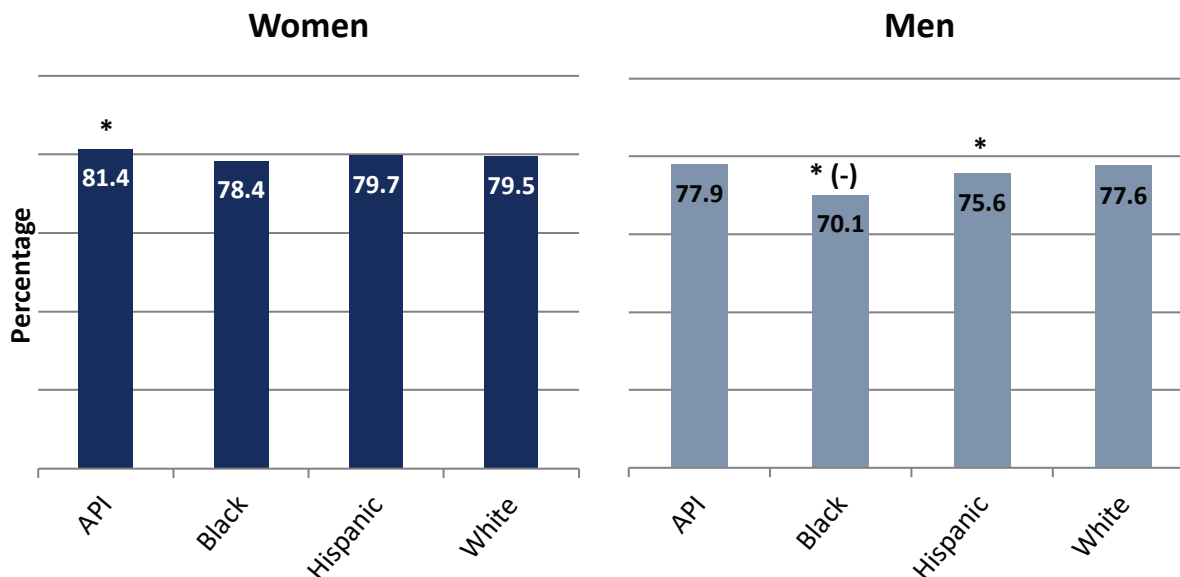
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatoid arthritis during the past year who were dispensed at least one ambulatory prescription for a DMARD, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women diagnosed with rheumatoid arthritis were more likely than White women diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between API and White women was less than 3 percentage points. Black and Hispanic women diagnosed with rheumatoid arthritis were about as likely as White women diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD.
- Black and Hispanic men diagnosed with rheumatoid arthritis were less likely than White men diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD. The difference between Black and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points. API men diagnosed with rheumatoid arthritis were about as likely as White men diagnosed with rheumatoid arthritis to have been dispensed at least one DMARD.

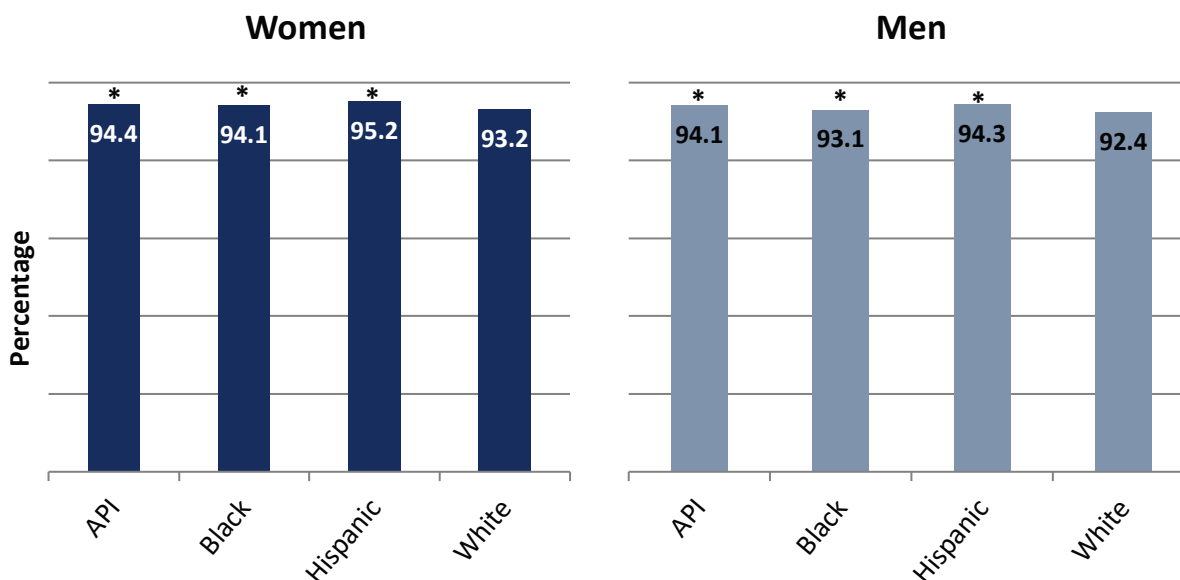
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year who had at least one therapeutic monitoring event for the agent during the year, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women were more likely than White women to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men were more likely than White men to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

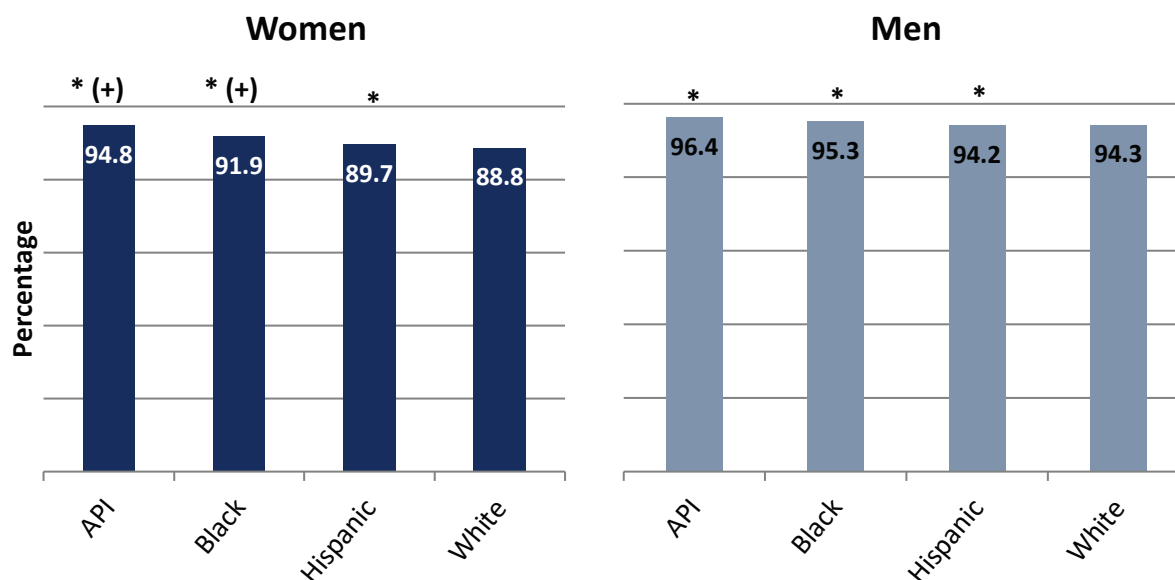
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for 6 months or longer: ACE inhibitors, ARBs, digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2017 data, it was observed that this standard of care was met more often for elderly API, Black, and Hispanic women than for elderly White women. The difference between elderly API women and elderly White women was greater than 3 percentage points, as was the difference between elderly Black women and elderly White women. The difference between elderly Hispanic women and elderly White women was less than 3 percentage points.
- In the 2017 data, it was observed that this standard of care was met more often for elderly API and Black men than for elderly White men. The difference between API and White men and between Black and White men was less than 3 percentage points. This standard of care was met less often for elderly Hispanic men than for elderly White men. This difference was also less than 3 percentage points.

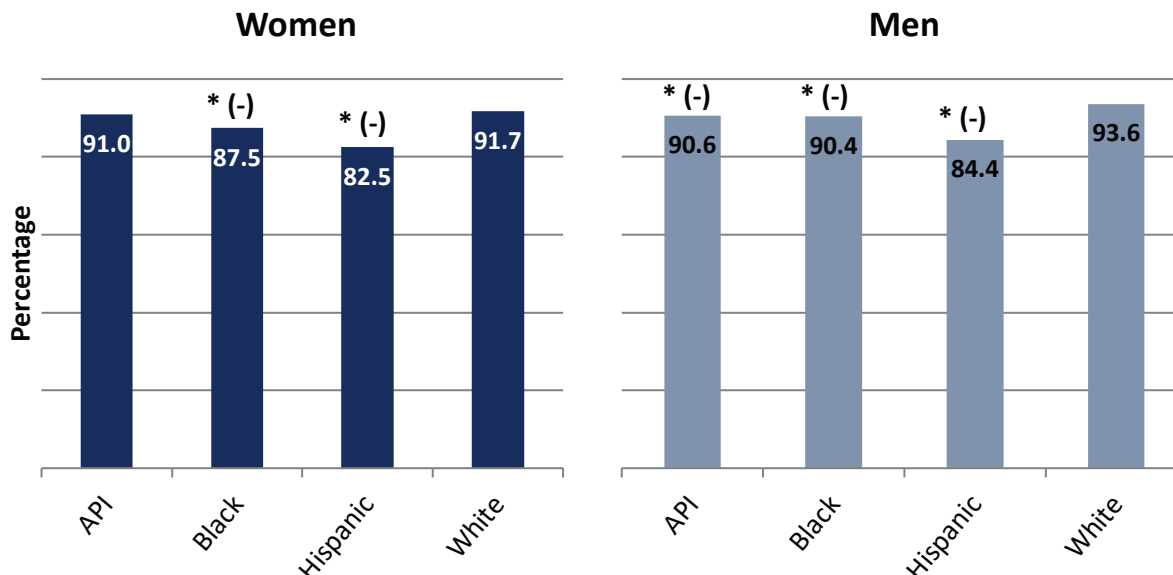
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure  
who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup>  
by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with chronic renal failure. In the 2017 data, it was observed that this standard of care was met less often for elderly Black and Hispanic women than for elderly White women. In each case, the difference was greater than 3 percentage points. This standard of care was met about as often for elderly API women as it was for White women.
- In the 2017 data, it was observed that the standard of care was met less often for elderly API, Black, and Hispanic men than for elderly White men. In each case, the difference was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

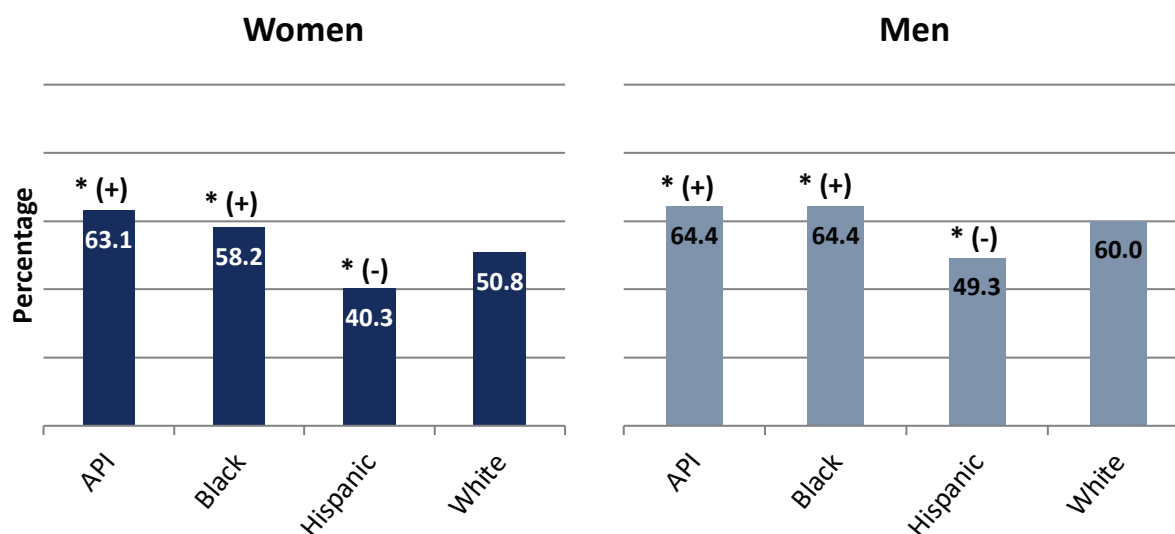
- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes COX-2 selective NSAIDs and nonaspirin NSAIDs.



## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with dementia. In the 2017 data, it was observed that this standard of care was met more often for elderly API and Black women with dementia than for elderly White women with dementia. In each case, the difference was greater than 3 percentage points. The standard of care was met less often for elderly Hispanic women with dementia than for elderly White women with dementia. This difference was also greater than 3 percentage points.
- In the 2017 data, it was observed that the standard of care was met more often for elderly API and Black men with dementia than for elderly White men with dementia. In each case, the difference was greater than 3 percentage points. The standard of care was met less often for elderly Hispanic men with dementia than for elderly White men with dementia. This difference was also greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

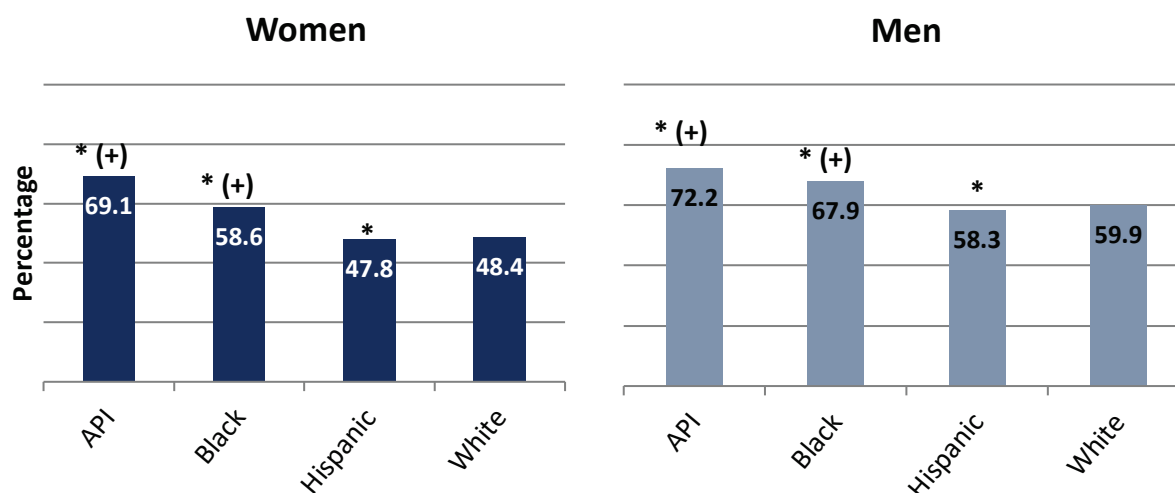
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2017 data, it was observed that this standard of care was met more often for elderly API and Black women with a history of falls than for elderly White women with a history of falls. In each case, the difference was greater than 3 percentage points. This standard of care was met less often for elderly Hispanic women with a history of falls than for elderly White women with a history of falls. In this case, the difference was less than 3 percentage points.
- In the 2017 data, it was observed that the standard of care was met more often for elderly API and Black men with a history of falls than for elderly White men with a history of falls. In each case, the difference was greater than 3 percentage points. This standard of care was met less often for elderly Hispanic men with a history of falls than for elderly White men with a history of falls. In this case, the difference was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

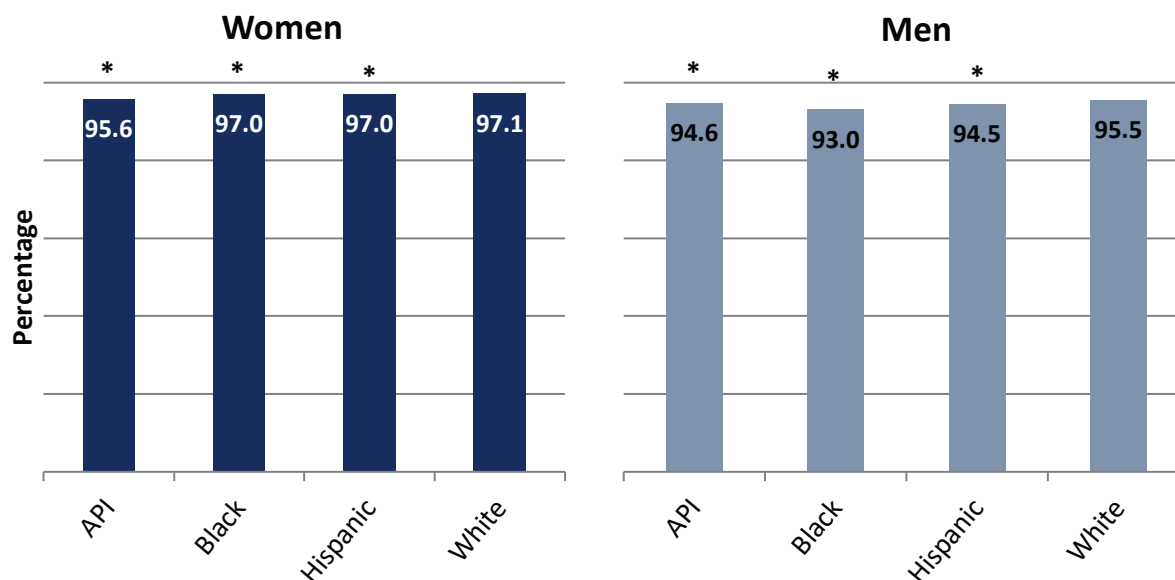
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, SSRIs, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women were less likely than White women to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men were less likely than White men to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.

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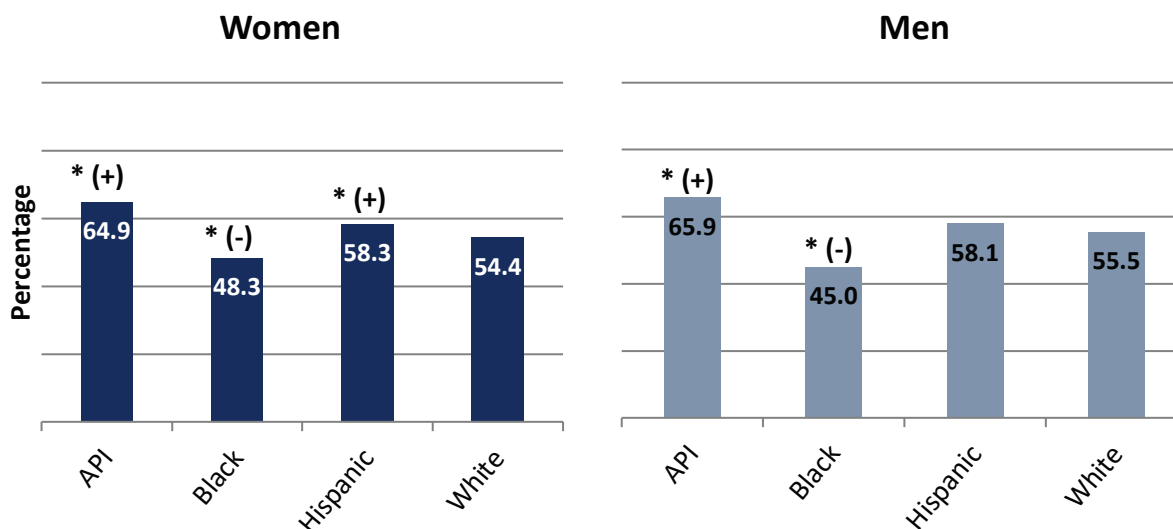
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Medication Reconciliation After Hospital Discharge

Percentage of MA enrollees aged 18 years and older who were discharged from an inpatient facility and had their medications reconciled within 30 days, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women who were discharged from an inpatient facility were more likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. In each case, the difference was greater than 3 percentage points. Black women who were discharged from an inpatient facility were less likely than White women who were discharged from an inpatient facility to have had their medications reconciled within 30 days. This difference was also greater than 3 percentage points.
- API men who were discharged from an inpatient facility were more likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between API and White men was greater than 3 percentage points. Black men who were discharged from an inpatient facility were less likely than White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days. The difference between Black and White men was greater than 3 percentage points. Hispanic men who were discharged from an inpatient facility were about as likely as White men who were discharged from an inpatient facility to have had their medications reconciled within 30 days.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

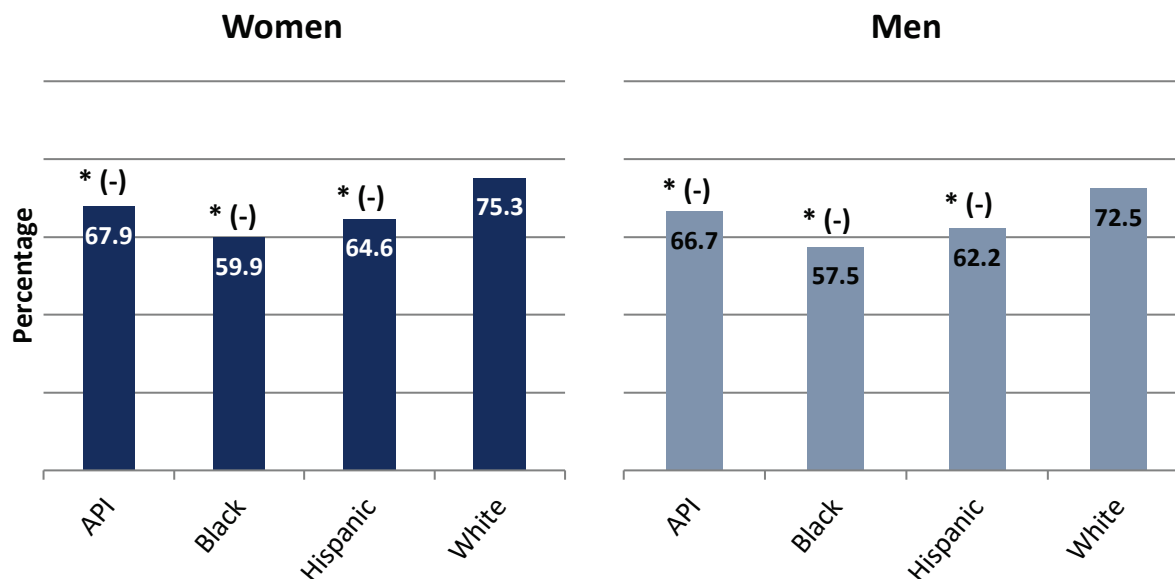
For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression who remained on antidepressant medication for at least 84 days, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.

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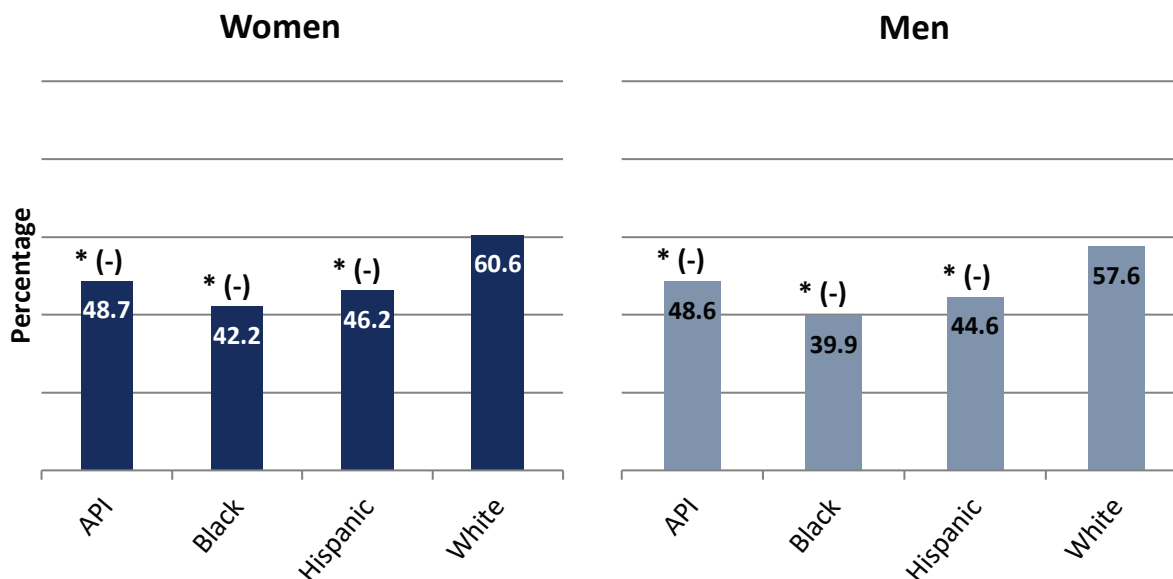
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment

**Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication who remained on an antidepressant medication treatment for at least 180 days, by race and ethnicity within gender, 2017**



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.

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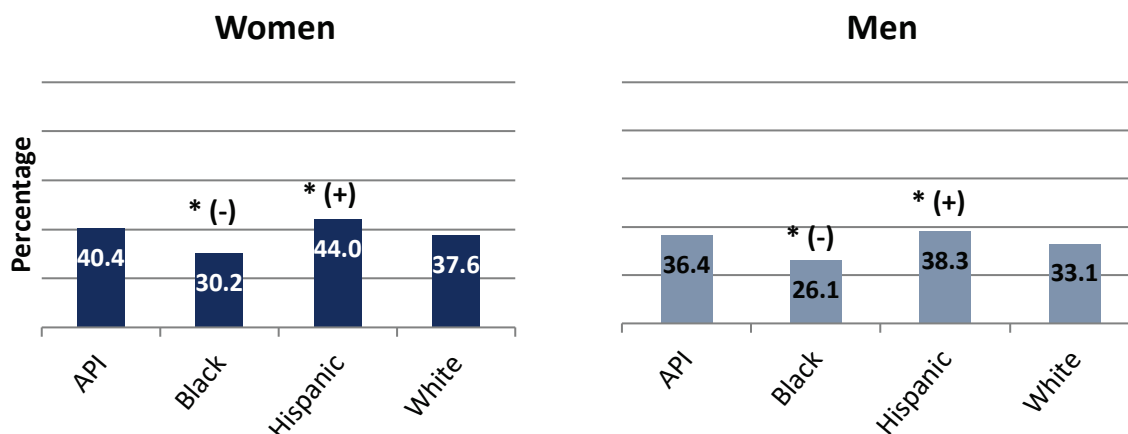
\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.
- (-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 7 days of discharge, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

API = Asian or Pacific Islander.

### Disparities

- Hispanic women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge. In contrast, Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge. In each case, the difference was greater than 3 percentage points. API women hospitalized for a mental health disorder were about as likely as White women hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge.
- Hispanic men hospitalized for a mental health disorder were more likely than White men hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge. In contrast, Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge. In each case, the difference was greater than 3 percentage points. API men hospitalized for a mental health disorder were about as likely as White men hospitalized for a mental health disorder to have had appropriate follow-up care within 7 days of discharge.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

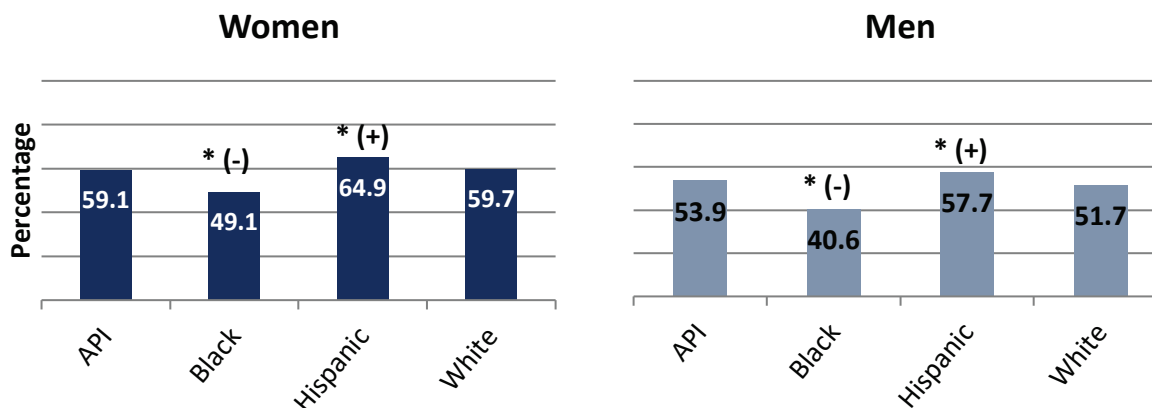
(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. In contrast, Hispanic women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had such a follow-up visit. Each difference was greater than 3 percentage points. API women hospitalized for a mental health disorder were about as likely as White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge.
- Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. In contrast, Hispanic men hospitalized for a mental health disorder were more likely than White men hospitalized for a mental health disorder to have had such a follow-up visit. Each difference was greater than 3 percentage points. API men hospitalized for a mental health disorder were about as likely as White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

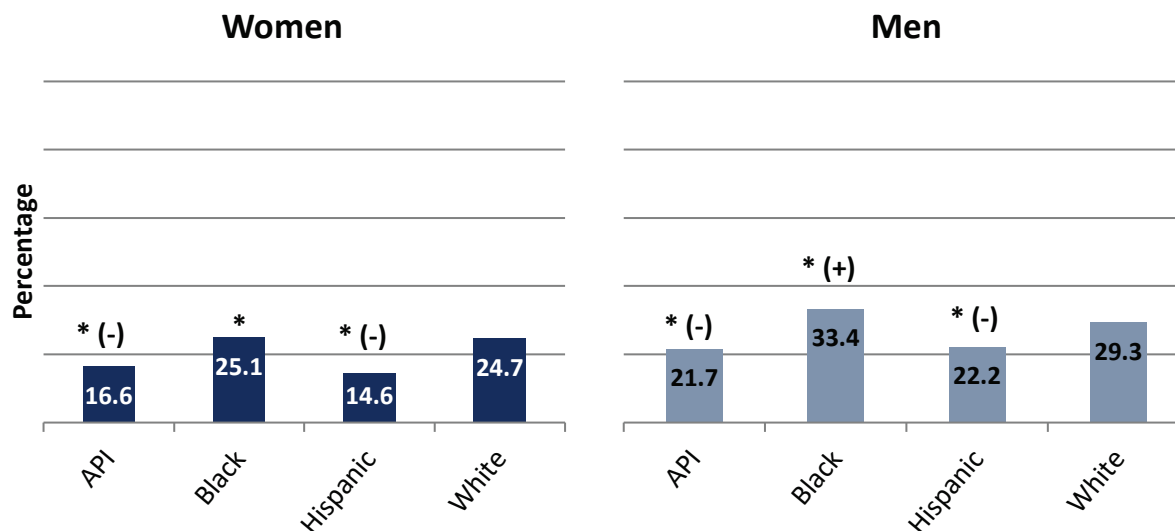
(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.



## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated<sup>‡</sup> treatment within 14 days of the diagnosis, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with a new episode of AOD dependence were less likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. In each case, the difference was greater than 3 percentage points. Black women with a new episode of AOD dependence were more likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. This difference was less than 3 percentage points.
- API and Hispanic men with a new episode of AOD dependence were less likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. In each case, the difference was greater than 3 percentage points. Black men with a new episode of AOD dependence were more likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. This difference was also greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

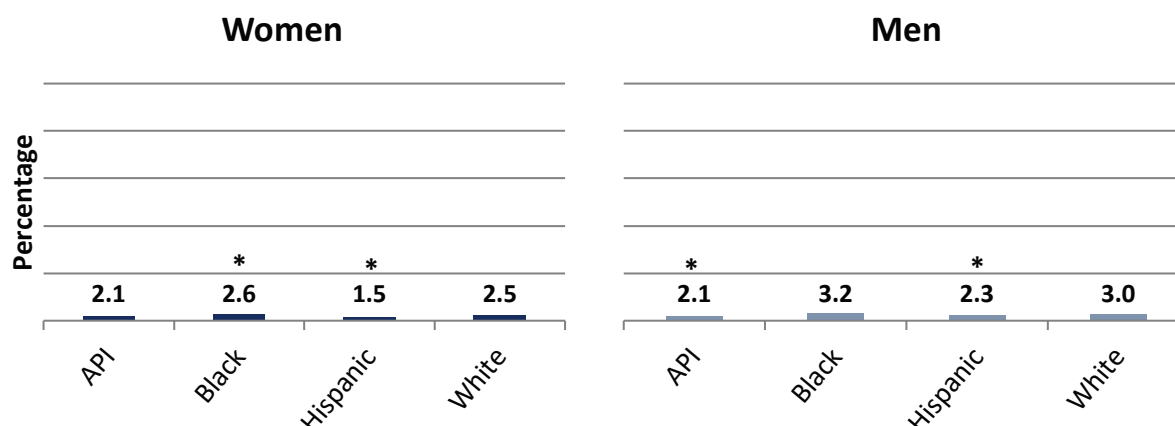
(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment who had two or more additional services within 30 days of the initiation visit, by race and ethnicity within gender, 2017



**SOURCE:** Clinical quality data collected in 2017 from Medicare health plans nationwide.

**NOTES:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black women with a new episode of AOD dependence who initiated treatment were more likely than White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. In contrast, Hispanic women with a new episode of AOD dependence who initiated treatment were less likely than White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. In each case, the difference was less than 3 percentage points. API women with a new episode of AOD dependence who initiated treatment were about as likely as White women with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit.
- API and Hispanic men with a new episode of AOD dependence who initiated treatment were less likely than White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit. In each case, the difference was less than 3 percentage points. Black men with a new episode of AOD dependence who initiated treatment were about as likely as White men with a new episode of AOD dependence who initiated treatment to have had two or more additional services within 30 days of the initiation visit.

\* Significantly different from the score for Whites ( $p < 0.05$ ).

For statistically significant differences between Whites and racial or ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (before rounding) and favors the racial or ethnic minority group.

(-) Difference is equal to or larger than 3 points (before rounding) and favors Whites.

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## Appendix: Data Sources and Methods

### *The Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Surveys*

Medicare CAHPS surveys are mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with contracts serving as strata for Medicare Advantage (MA) beneficiaries and for fee-for-service (FFS) beneficiaries enrolled in prescription drug plans (PDPs) and states serving as strata for FFS beneficiaries not enrolled in a PDP. The 2017 survey attempted to contact 844,320 Medicare beneficiaries and received responses from 340,645, a 40 percent response rate. The 2017 surveys represent all FFS beneficiaries, MA beneficiaries from 447 MA contracts that either were required to report (minimum of 600 eligible enrollees) or reported voluntarily (450–599 enrollees), and PDP beneficiaries from 55 PDP contracts with at least 1,500 eligible enrollees. The data presented in this report pertain only to MA beneficiaries.

### *The Healthcare Effectiveness Data and Information Set (HEDIS)*

HEDIS consists of more than 90 measures across 6 domains of care (National Committee for Quality Assurance [NCQA], 2018). These domains include effectiveness of care, access/availability of care, experience of care, utilization and risk adjusted utilization, relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of NCQA. Although CAHPS data are collected only via surveys, HEDIS data are gathered both via surveys and via medical charts and insurance claims for hospitalizations, medical office visits, and procedures. In selecting HEDIS measures to include in this report, we excluded measures that underwent a recent change in specification, were similar to reported measures preferred by the Centers for Medicare & Medicaid Services (CMS), or were deemed unsuitable for this application by CMS experts.

### *Information on Race/Ethnicity*

The 2017 CAHPS survey asked beneficiaries, “Are you of Hispanic or Latino origin or descent?” The response options were: “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asked, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into 1 of 7 mutually exclusive categories: Hispanic, multiracial, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander (API), Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: Those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their responses.
- Respondents without data regarding race/ethnicity were classified as unknown.
- Unknown cases were dropped from the analysis. The multiracial group was included in the analysis, but estimates for this group are not presented in this report.
- In prior versions of this report, we did not include estimates for AI/AN beneficiaries because there were too few AI/AN respondents to make accurate comparisons between this group and

Whites when looking at women and men separately. For this year's report, there were sufficient data to report scores on some patient experience measures for AI/AN women only.

HEDIS data, unlike CAHPS data, do not contain the patient's self-reported race/ethnicity. Therefore, we imputed race/ethnicity for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Martino et al., 2013). This methodology is recommended for estimating racial/ethnic disparities for Black, Hispanic, API, and White beneficiaries, but not for AI/AN or multiracial beneficiaries. In 2017, there were 537 MA contracts that supplied the 20,596,107 HEDIS measure records used.

### *Information on Gender*

Information on the gender of MA beneficiaries is gathered from administrative records.

### *Analytic Approach*

The CAHPS measures presented in this report are composite measures that summarize, through averaging, the answers to two or more related CAHPS survey questions, or items. The annual flu vaccine measure is included in the CAHPS survey and is thus grouped with other CAHPS measures in this report. It is, however, considered to be a HEDIS measure. This is a single-item measure rather than a composite.

CAHPS estimates for different racial/ethnic groups are from case-mix-adjusted linear regression models that contained health contract intercepts, racial/ethnic indicators, and the following case-mix adjustors: age, education, self-rated health and mental health, dual eligibility/low-income subsidy, and proxy status. No adjustment was made for survey language. Race/ethnicity was coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White as the (omitted) reference group. CAHPS estimates for men and women are from case-mix-adjusted linear regression models that contained health contract intercepts, an indicator for female gender (with male as the reference group), and the same set of case-mix adjustors used in the racial/ethnic group models. CAHPS estimates for men and women of different racial/ethnic backgrounds are from case-mix-adjusted linear regression models, stratified by gender, that contained health contract intercepts, racial/ethnic indicators, and the case-mix adjustors.

Predicted probabilities of race/ethnicity were used as weights to develop HEDIS measure estimates for each racial/ethnic group (Elliott et al., 2009). None of the HEDIS measures reported (including the annual flu vaccine measure) is case-mix adjusted.

Statistical significance tests were used to compare the model-estimated scores for each racial/ethnic minority group with the score for Whites and to compare the model-estimated scores for women and men. A difference in scores is denoted as statistically significant if there is less than a 5 percent chance that the difference could have resulted due to sampling error alone. Differences that are statistically significant and larger than 3 points on a 0–100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant. That is, in the charts that present national data on racial/ethnic and gender differences in patient experience (CAHPS) and clinical care (HEDIS), differences that are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013).

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## Disclaimer

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## **Frequently Asked Questions Reporting of National Medicare Advantage Quality Scores by Race, Ethnicity, and Gender**

### **1. What is CMS announcing today?**

CMS is announcing the release of a national-level report detailing the health care experiences and quality of care received by Medicare beneficiaries enrolled in Medicare Advantage (MA). The report looks at racial and ethnic differences in health care experiences and clinical care received in 2017, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately. The release of this report is timed to coincide with Minority Health Month in April. Each year at this time CMS will make additional reports available to the general public on the [CMS OMH](#) website.

### **2. Why is CMS highlighting this information?**

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes (*2017 National Healthcare Quality and Disparities Report* - <https://www.ahrq.gov/research/findings/nhqrdr/nhqrdr17/index.html>). To comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Additionally, the IMPACT Act of 2014 requires the HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE) to examine the differential effect of several demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures.

### **3. What do these data represent?**

The data presented in the report indicate overall differences in the care delivered to Medicare beneficiaries who identify as American Indian or Alaska Native, Asian or Pacific Islander, Black/African American, Hispanic, or White. The data also indicate overall differences in the quality of care for women and men as well as how racial and ethnic differences in the care delivered to Medicare beneficiaries vary for women and men.

### **4. How can MA contracts use this information to improve performance?**

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures aggregated at the national level, stratified by race and ethnicity, by gender, and by race and ethnicity within gender. This information may be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally appropriate quality improvement interventions and strategies.

### **5. Are these results included in the MA and Part D Star Ratings Program?**

NO. This effort is entirely separate from the MA and Part D Star Ratings program. These scores are intended to be used for health and drug plan quality improvement and accountability purposes.

**6. Do the data presented in this release suggest that CMS' Categorical Adjustment Index used to account for differences in performance among enrollees with low income subsidy and/or dual eligible and disability status in the Part C and D Star Ratings programs should be modified?**

NO. The descriptive data in this release do not suggest that use of the Categorical Adjustment Index in the Part C and D Star Ratings is inappropriate. The analyses released today examine racial, ethnic, and gender differences in CAHPS and HEDIS scores.

**7. Do these results affect MA contract payments?**

NO. These results are not used for payment purposes of any sort. As required by the IMPACT Act of 2014, the HHS ASPE has examined the differential effect of a number of demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures. Results from the ASPE Report to Congress on *Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs* can be found [here](#).

**8. How is gender reported?**

For both the patient experience (CAHPS) measures and the clinical care (HEDIS) measures, scores are reported for women and men.

**9. How is race and ethnicity reported?**

For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience (CAHPS) measures are provided for five racial and ethnic groups: (1) American Indians or Alaska Natives, (2) Asians or Pacific Islanders (including Native Hawaiians), (3) Blacks, (4) Hispanics, and (5) Whites. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care (HEDIS) measures are provided for the same groups except American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine if a beneficiary is in this group. For the racial/ethnic group comparisons within gender, scores on patient experience measures and clinical care measures are provided for all five racial and ethnic groups for women but are limited to Asians or Pacific Islanders, Blacks, Hispanics, and Whites for men. Scores on patient experience measures are not presented for American Indian or Alaska Native men because sample sizes for that group are insufficient for reliable reporting.

**10. If the score for a particular racial or ethnic minority group is lower than the score for Whites, what does that mean?**

At the national level, for patient experience measures, a lower score for a particular racial or ethnic minority group means that members of that group reported worse experiences than Whites (either overall or for a particular gender) after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure, are not adjusted for these other characteristics. At the national level, for clinical care measures, a lower score for a particular racial or ethnic minority group means that members of that group received worse care than Whites (either overall or for a particular gender).





**CMS Office of Minority Health in  
collaboration with the RAND Corporation**



# **Racial, Ethnic, and Gender Disparities in Health Care in Medicare Advantage**

**April 2018**

1968





# Table of Contents

Executive Summary .....	7
Racial and Ethnic Disparities in Care: All Patient Experience Measures .....	10
Racial and Ethnic Disparities in Care: All Clinical Care Measures .....	11
Gender Disparities in Care: All Patient Experience and Clinical Care Measures .....	12
Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures .....	13
Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures .....	14
Background .....	15
Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage .....	19
Disparities in Care: All Patient Experience Measures .....	20
Patient Experience: Getting Needed Care .....	22
Patient Experience: Getting Appointments and Care Quickly .....	23
Patient Experience: Customer Service .....	24
Patient Experience: Doctors Who Communicate Well .....	25
Patient Experience: Care Coordination .....	26
Patient Experience: Getting Needed Prescription Drugs .....	27
Patient Experience: Getting Information About Prescription Drugs .....	28
Patient Experience: Annual Flu Vaccine .....	29
Disparities in Care: All Clinical Care Measures .....	30
Clinical Care: Colorectal Cancer Screening .....	32
Clinical Care: Breast Cancer Screening .....	33
Clinical Care: Diabetes Care—Blood Sugar Testing .....	34
Clinical Care: Diabetes Care—Eye Exam .....	35
Clinical Care: Diabetes Care—Kidney Disease Monitoring .....	36
Clinical Care: Diabetes Care—Blood Pressure Controlled .....	37
Clinical Care: Diabetes Care—Blood Sugar Controlled .....	38
Clinical Care: Adult Body Mass Index Assessment .....	39
Clinical Care: Controlling Blood Pressure .....	40
Clinical Care: Continuous Beta-Blocker Treatment .....	41
Clinical Care: Testing to Confirm COPD .....	42
Clinical Care: Pharmacotherapy Management of COPD Exacerbation —Systemic Corticosteroid .....	43
Clinical Care: Pharmacotherapy Management of COPD Exacerbation —Bronchodilator .....	44
Clinical Care: Rheumatoid Arthritis Management .....	45
Clinical Care: Osteoporosis Management in Women Who Had a Fracture .....	46
Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications .....	47
Clinical Care: Avoiding Use of High-Risk Medications in the Elderly .....	48

Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure .....	49
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia .....	50
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls .....	51
Clinical Care: Older Adults' Access to Preventive/Ambulatory Services .....	52
Clinical Care: Antidepressant Medication Management— Acute Phase Treatment .....	53
Clinical Care: Antidepressant Medication Management —Continuation Phase Treatment .....	54
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge) ..	55
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge) .....	56
Clinical Care: Initiation of Alcohol or Other Drug Treatment .....	57
Clinical Care: Engagement of Alcohol or Other Drug Treatment .....	58
Section II: Gender Disparities in Health Care in Medicare Advantage .....	59
Disparities in Care: All Patient Experience and Clinical Care Measures .....	60
Patient Experience: Getting Needed Care .....	61
Patient Experience: Getting Appointments and Care Quickly .....	62
Patient Experience: Customer Service .....	63
Patient Experience: Doctors Who Communicate Well .....	64
Patient Experience: Care Coordination .....	65
Patient Experience: Getting Needed Prescription Drugs .....	66
Patient Experience: Getting Information About Prescription Drugs .....	67
Patient Experience: Annual Flu Vaccine .....	68
Clinical Care: Colorectal Cancer Screening .....	69
Clinical Care: Diabetes Care—Blood Sugar Testing .....	70
Clinical Care: Diabetes Care—Eye Exam .....	71
Clinical Care: Diabetes Care—Kidney Disease Monitoring .....	72
Clinical Care: Diabetes Care—Blood Pressure Controlled .....	73
Clinical Care: Diabetes Care—Blood Sugar Controlled .....	74
Clinical Care: Adult BMI Assessment .....	75
Clinical Care: Controlling Blood Pressure .....	76
Clinical Care: Continuous Beta-Blocker Treatment .....	77
Clinical Care: Testing to Confirm COPD .....	78
Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid .....	79
Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Bronchodilator .....	80
Clinical Care: Rheumatoid Arthritis Management .....	81
Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications .....	82

Clinical Care: Avoiding Use of High-Risk Medications in the Elderly .....	83
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure .....	84
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia .....	85
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls .....	86
Clinical Care: Older Adults' Access to Preventive/Ambulatory Services .....	87
Clinical Care: Antidepressant Medication Management— Acute Phase Treatment .....	88
Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment .....	89
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge) ..	90
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge) .....	91
Clinical Care: Initiation of Alcohol or Other Drug Treatment .....	92
Clinical Care: Engagement of Alcohol or Other Drug Treatment .....	93
Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage .....	94
Disparities in Care: All Patient Experience Measures .....	95
Patient Experience: Getting Needed Care .....	97
Patient Experience: Getting Appointments and Care Quickly .....	98
Patient Experience: Customer Service .....	99
Patient Experience: Doctors Who Communicate Well .....	100
Patient Experience: Care Coordination .....	101
Patient Experience: Getting Needed Prescription Drugs .....	102
Patient Experience: Getting Information About Prescription Drugs .....	103
Patient Experience: Annual Flu Vaccine .....	104
Disparities in Care: All Clinical Care Measures .....	105
Clinical Care: Colorectal Cancer Screening .....	108
Clinical Care: Diabetes Care—Blood Sugar Testing .....	109
Clinical Care: Diabetes Care—Eye Exam .....	110
Clinical Care: Diabetes Care—Kidney Disease Monitoring .....	111
Clinical Care: Diabetes Care—Blood Pressure Controlled .....	112
Clinical Care: Diabetes Care—Blood Sugar Controlled .....	113
Clinical Care: Adult BMI Assessment .....	114
Clinical Care: Controlling Blood Pressure .....	115
Clinical Care: Continuous Beta-Blocker Treatment .....	116
Clinical Care: Testing to Confirm COPD .....	117
Clinical Care: Pharmacotherapy Management of COPD Exacerbation Systemic Corticosteroid .....	118
Clinical Care: Pharmacotherapy Management of COPD Exacerbation Bronchodilator .....	120

Clinical Care: Rheumatoid Arthritis Management.....	122
Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications .....	123
Clinical Care: Avoiding Use of High-Risk Medications in the Elderly .....	124
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure .....	125
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia .....	126
Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls .....	127
Clinical Care: Older Adults’ Access to Preventive/Ambulatory Services .....	129
Clinical Care: Antidepressant Medication Management— Acute Phase Treatment .....	130
Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment .....	131
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge).....	132
Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge) .....	133
Clinical Care: Initiation of Alcohol or Other Drug Treatment .....	134
Clinical Care: Engagement of Alcohol or Other Drug Treatment .....	135

# Executive Summary

This report describes the quality of health care received in 2016 by Medicare beneficiaries enrolled in Medicare Advantage plans nationwide. In particular, the report highlights racial and ethnic differences in health care experiences and clinical care, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately.

The report is based on an analysis of two sources of information. The first source is the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey, which is conducted annually by the Centers for Medicare & Medicaid Services (CMS) and focuses on experiences with the health and drug plan (e.g., ease of getting needed care, how well providers communicate, getting needed prescription drugs) of Medicare beneficiaries across the nation. The second source of information is the Healthcare Effectiveness Data and Information Set (HEDIS). HEDIS collects information from medical records and from administrative data on the technical quality of care that Medicare beneficiaries receive for a variety of medical issues, including diabetes, cardiovascular disease, and chronic lung disease.

### ***Distribution of Race, Ethnicity, and Gender Among Medicare Advantage Beneficiaries***

In 2016, an estimated 69.7 percent of all Medicare Advantage beneficiaries were White, 12.9 percent were Hispanic, 10.4 percent were Black, 4.1 percent were Asians or Pacific Islanders, 2.5 percent were Multiracial (not included in this report), and 0.4 percent were American Indians or Alaska Natives. An estimated 56.3 percent were female and 43.7 percent were male.

### ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

With just one exception, Medicare Advantage beneficiaries in racial and ethnic minority groups reported experiences with care that were either worse than or similar to the experiences reported by White beneficiaries (see Figure 1). Compared with White beneficiaries, American Indian or Alaska Native beneficiaries reported worse experiences on six measures and similar experiences on the other two measures.<sup>1</sup> Asian or Pacific Islander beneficiaries reported worse experiences than Whites on seven measures and better experiences on one measure. Black beneficiaries reported worse experiences than Whites on two measures and similar experiences on the other six measures. Hispanic beneficiaries reported worse experiences than Whites on three measures and similar experiences on the other five measures.

Racial and ethnic disparities were more variable for the clinical care measures than for the patient experience measures (see Figure 2). Hispanic beneficiaries received worse clinical care than White beneficiaries for 11 of 27 measures, but received care of similar quality for ten measures and better quality for six measures. Black beneficiaries received worse clinical care than Whites for eight measures, but received care of similar quality for 16 measures and better quality for three measures. Asian or Pacific Islander beneficiaries received worse clinical care than Whites for three measures, but received care of similar quality for 13 measures and better quality for 11 measures.

### ***Gender Disparities in Health Care in Medicare Advantage***

In general, the quality of care received by women and men was similar. Women and men reported similar experiences of care for all eight measures of patient experience (see Figure 3). The clinical care

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<sup>1</sup> Here, “worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold, as described in the technical appendix. “Similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both.

received by women and men was of similar quality for 19 of 25 measures.<sup>2</sup> For the six remaining clinical care measures, women received worse care than men for three measures and better care than men for three measures.

***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Patterns of racial and ethnic differences in patient experience were generally similar among women and men (see Figure 4). Among both women and men, Asian and Pacific Islander beneficiaries reported worse experiences than White beneficiaries for seven measures and better experiences for one measure. Among women, Black beneficiaries reported worse patient experiences than White beneficiaries for two measures and similar experiences for six measures; among men, Black beneficiaries reported worse patient experiences than White beneficiaries for four measures and similar experiences for four measures. Among women, Hispanic beneficiaries reported worse patient experiences than White beneficiaries for three measures and similar experiences for five measures; among men, Hispanic beneficiaries reported worse experiences than White beneficiaries for four measures and similar experiences for four measures.

Patterns of racial and ethnic differences in clinical care were also largely similar among women and men (see Figure 5). Among women, Asian and Pacific Islander beneficiaries received worse clinical care than White women for three of 25 measures, but received care of similar quality for 15 measures and better quality for seven measures. Among men, Asian and Pacific Islander beneficiaries received worse clinical care than White beneficiaries for three of 25 measures, but received care of similar quality for 13 measures and better quality for nine measures. Among women, Black beneficiaries received worse clinical care than White beneficiaries for nine measures, but received care of similar quality for 14 measures and better quality for two measures. Among men, Black beneficiaries received worse clinical care than White beneficiaries for 11 measures, but received care of similar quality for 11 measures and better quality for three measures. Among both women and men, Hispanic beneficiaries received worse clinical care than White beneficiaries for nine measures, but received care of similar quality for 12 measures and better quality for four measures.

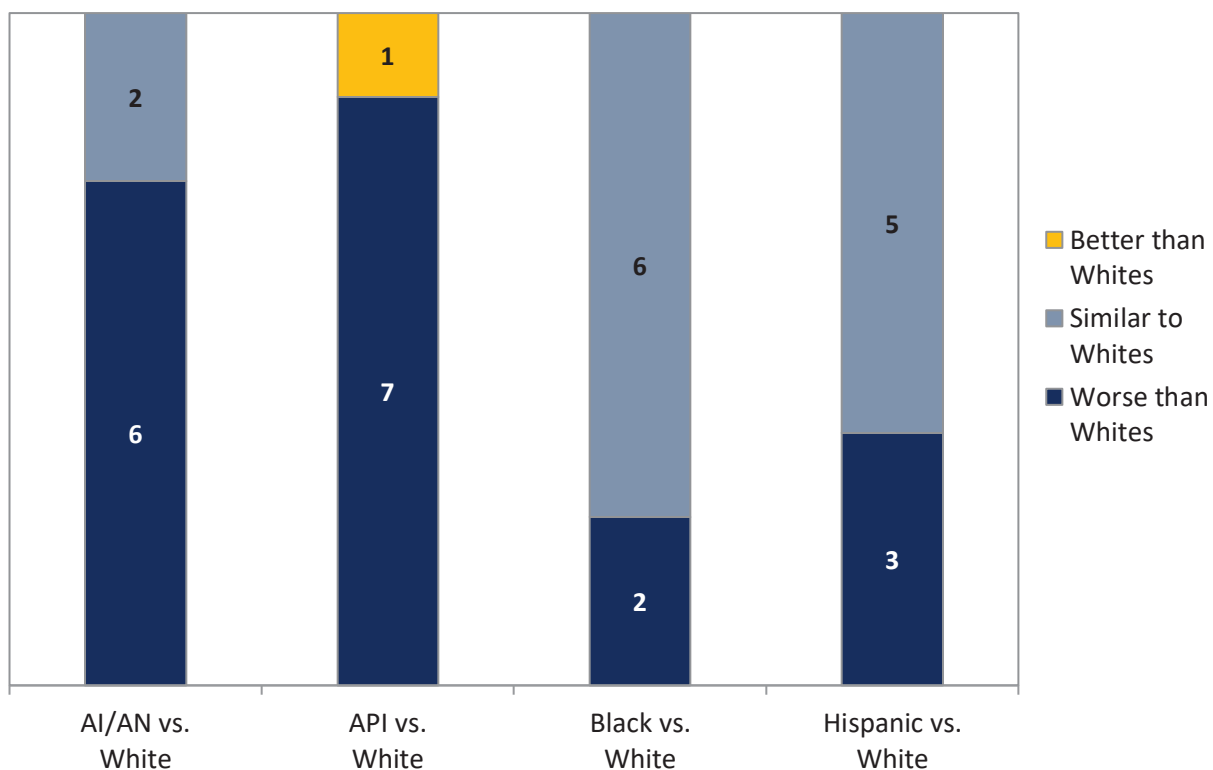
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<sup>2</sup> Two clinical care measures, “breast cancer screening” and “osteoporosis management in women who had a fracture,” pertained to women only and so were not eligible for stratified reporting by gender.



## Figure 1. Racial and Ethnic Disparities in Care: All Patient Experience Measures

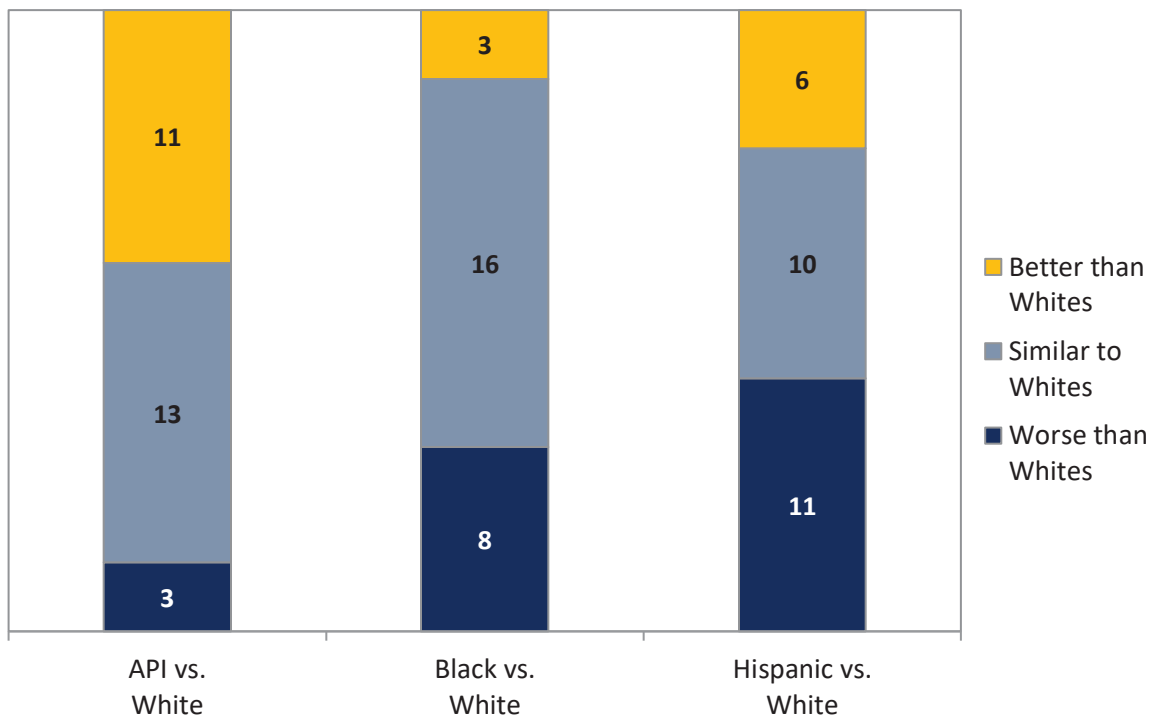
Number of patient experience measures (out of 8) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2016



**Data source and chart notes:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS survey. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

## Figure 2. Racial and Ethnic Disparities in Care: All Clinical Care Measures

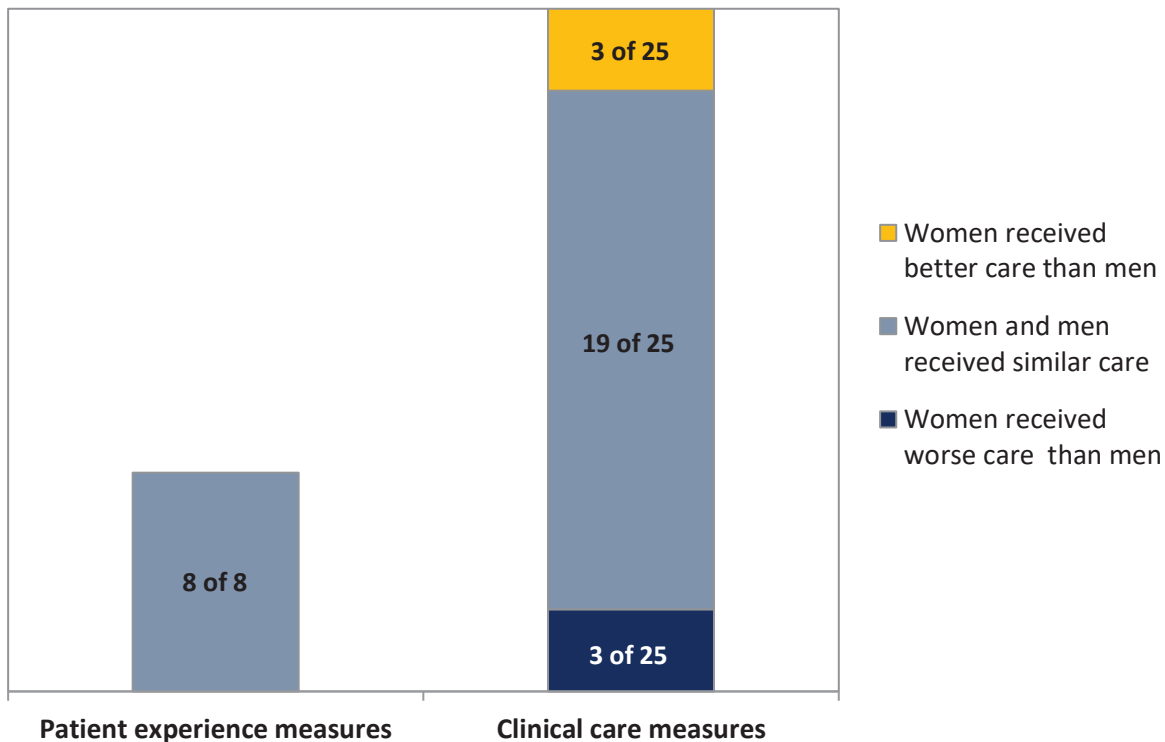
Number of clinical care measures (out of 27) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2016



**Data source and chart notes:** This chart summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

### Figure 3. Gender Disparities in Care: All Patient Experience and Clinical Care Measures

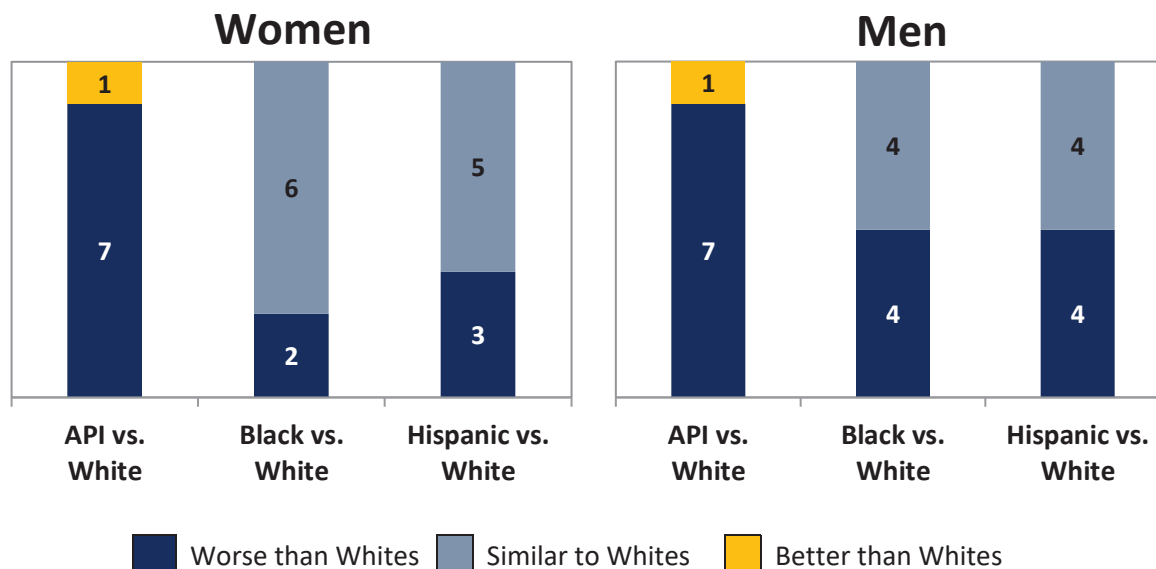
Number of patient experience measures (out of 8) and clinical care measures (out of 25) for which women received care that was worse than, similar to, or better than the care received by men in 2016



**Data source:** The bar on the left (patient experience measures) summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide.

### Figure 4. Racial and Ethnic Disparities in Care by Gender: All Patient Experience Measures

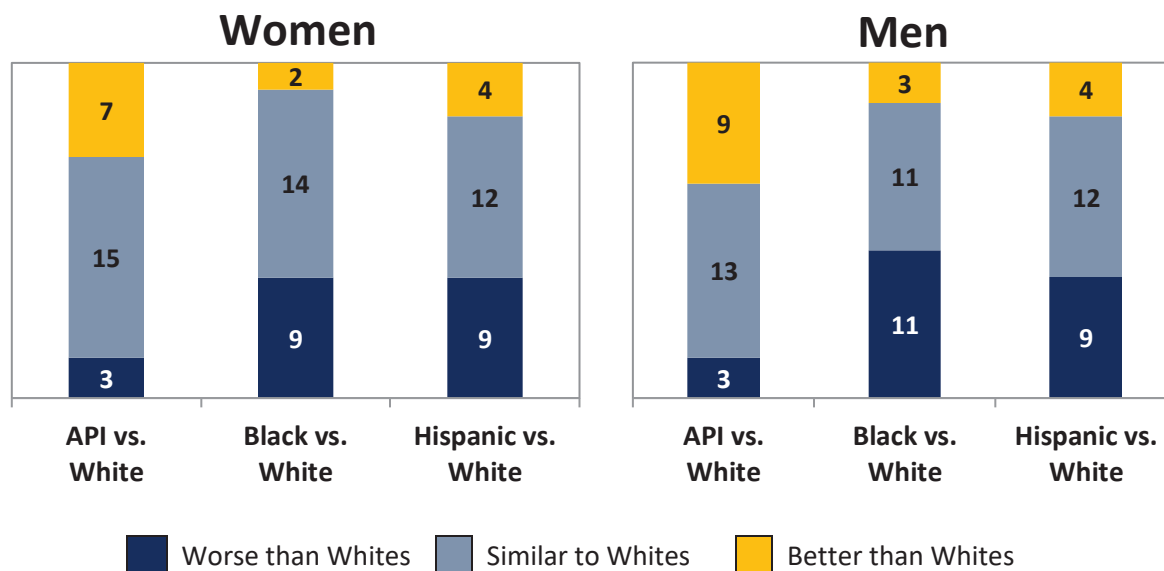
Number of patient experience measures (out of 8) for which women and men of selected racial and ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women and men in 2016



**Data source and chart notes:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS Survey. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

## Figure 5. Racial and Ethnic Disparities in Care by Gender: All Clinical Care Measures

Number of clinical care measures (out of 25) for which women/men of selected racial and ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2016



**Data source and chart notes:** This chart summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

# Background

## Overview

This report presents summary information on the quality of health care received in 2016 by Medicare beneficiaries enrolled in Medicare Advantage plans nationwide. Two types of quality of care data are presented: measures of patient experience, which describe how well the care patients receive meets their needs for such things as timely appointments, respectful care, clear communication, and access to information; and measures of clinical care, which describe the extent to which patients receive appropriate screening and treatment for specific health conditions. The Institute of Medicine has identified the equitable delivery of care as a hallmark of quality.<sup>1</sup> Assessing equitability in the delivery of care requires making comparisons of quality by personal characteristics of patients such as gender, race, and ethnicity. Three sets of such comparisons are presented in this report. In the first set, quality of care for racial and ethnic minority groups is compared with quality of care for Whites. In the second, quality of care for women is compared with quality of care for men. In the third, quality of care for racial and ethnic minority groups is compared with quality of care for Whites of the same gender. Previously, the Centers for Medicare & Medicaid Services (CMS) presented these comparisons in three separate reports. This information—which may be of interest to Medicare beneficiaries, Medicare Advantage organizations, and prescription drug plan sponsors—is being presented in a single report in 2018 to provide a more comprehensive understanding of the ways in which care differs by race/ethnicity, gender, and the intersection of these two characteristics. The focus of this report is on differences that exist at the national level. Interested readers can find information about health care quality for specific Medicare plans at <https://www.medicare.gov/find-a-plan/questions/home.aspx>, and about racial and ethnic differences in health care quality within Medicare plans at <https://www.cms.gov/About-CMS/Agency-Information/OMH/research-and-data/statistics-and-data/stratified-reporting.html>.

## Data Sources

In all, this report provides data regarding 8 patient experience measures and 27 clinical care measures. The patient experience data were collected from a national survey of Medicare beneficiaries, known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this report are from the 2016 Medicare CAHPS survey. Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get information from their drug plans about prescription drug coverage and cost.

The clinical care data were gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from Medicare Advantage plans nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS). Examples of clinical care measures include whether beneficiaries received appropriate screening for colon cancer, whether beneficiaries with diabetes received a test that determines whether their blood sugar is under control, and whether appropriate treatment was provided to beneficiaries with chronic obstructive pulmonary disease (COPD). Two of the clinical care measures presented in this report, one pertaining to breast cancer screening and the other to management of osteoporosis, are specific to women. Thus, the set of comparisons by gender and the set of comparisons by race/ethnicity within gender exclude these two measures. The HEDIS data reported here were collected in 2016. Whereas all patient experience measures are applicable to beneficiaries aged 18 years and older, certain HEDIS measures apply to beneficiaries in a more limited age range as noted throughout the report.

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<sup>1</sup> Institute of Medicine (IOM), *Crossing the Quality Chasm: A New Health System for the 21st Century*, Washington, D.C.: National Academy Press, 2001.

In 2016, an estimated 69.7 percent of all MA beneficiaries were White, 12.9 percent were Hispanic, 10.4 percent were Black, 4.1% were Asians or Pacific Islanders, 2.5 percent were Multiracial, and 0.4 percent were American Indians or Alaska Natives. An estimated 56.3 percent were female and 43.7 percent were male. For the racial and ethnic group comparisons that combine data from women and men, scores on patient experience measures are provided for all racial and ethnic groups except Multiracial. These racial and ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care measures are provided for the same groups except American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine whether a beneficiary is in this group. For the racial and ethnic group comparisons within gender, scores on patient experience measures and clinical care measures are limited to Asians or Pacific Islanders, Blacks, Hispanics, and Whites. Scores on patient experience measures are not presented for American Indians or Alaska Natives in the final set of comparisons because sample sizes for that group are insufficient for reliable reporting at the level of a single gender.

### ***Racial and Ethnic Disparities in Health Care in Medicare Advantage***

Section I of the report begins with a stacked bar chart showing the number of patient experience measures (out of 8) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites.<sup>2</sup> Following this stacked bar chart are separate, unstacked bar charts for each patient experience measure. These charts show the average score for each racial and ethnic group on a 0–100 scale. The average score represents the percentage of the best possible score for a given demographic group for that measure. For example, consider a measure for which the best possible score is 4 and the worst possible score is 1. If a given group's score on that measure is 3.5, then that group's score on a 0–100 scale is  $([3.5-1]/[4-1])*100 = 83.3$ . After the patient experience measures, Section I presents a stacked bar chart showing the number of clinical care measures (out of 27) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following this stacked bar chart are separate, unstacked bar charts for each clinical care measure that show the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure (e.g., a test or treatment).

### ***Gender Disparities in Health Care in Medicare Advantage***

Section II of the report begins with a pair of stacked bar charts that show the number of patient experience measures (out of 8) and the number of clinical care measures (out of 25) for which women received care that was worse than, similar to, or better than the care received by men. Gender data for each of the patient experience and clinical care measures are then presented in the form of unstacked bar charts.

### ***Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage***

Section III of the report begins with a pair of stacked bar charts that show, separately for women and men, the number of patient experience measures (out of 8) for which members of each racial and ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. Following these stacked bar charts are separate, unstacked bar charts for each patient experience measure. These charts show, separately for men and women, the average score for each racial and ethnic group on a 0–100 scale. After the patient experience measures, Section

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<sup>2</sup> Here, “similar” is used to characterize differences that are not statistically significant, fall below a magnitude threshold, or both, as described in the technical appendix. “Worse” and “better” are used to characterize differences that are statistically significant and exceed a magnitude threshold.



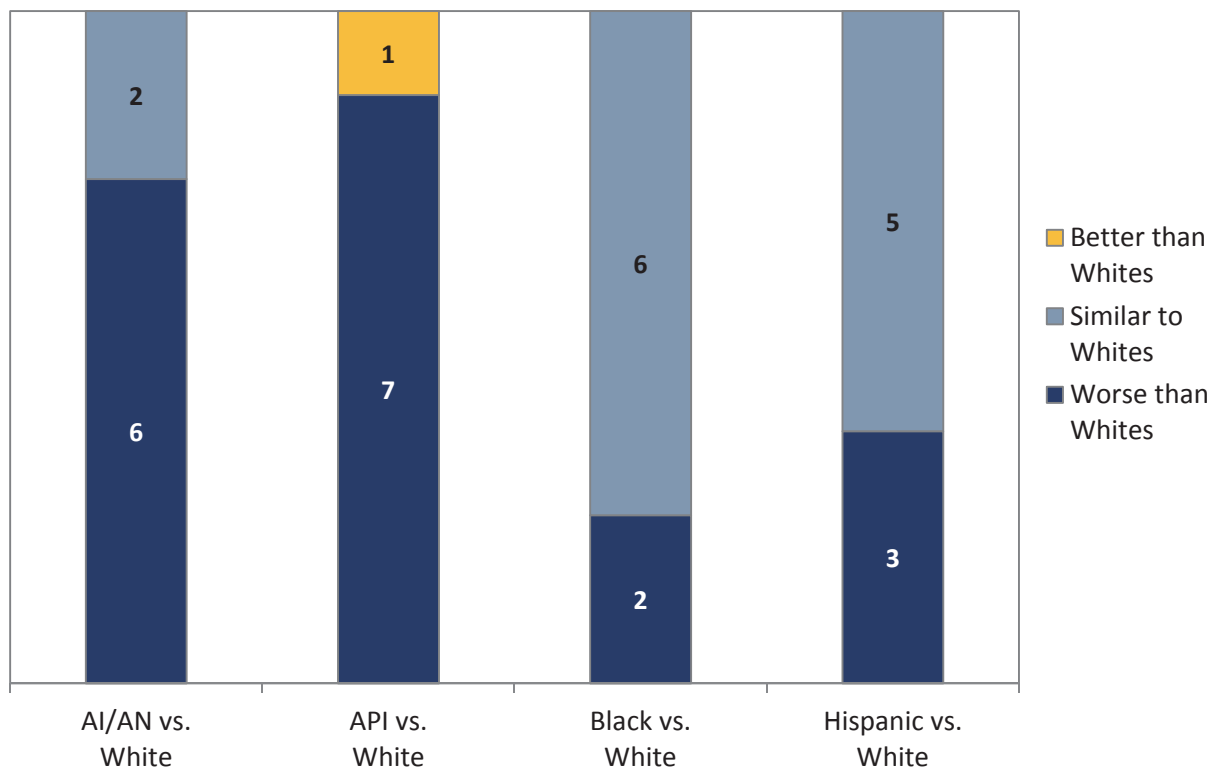
III presents a pair of stacked bar charts that show, separately for men and women, the number of clinical care measures (out of 25) for which members of each racial and ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following these stacked bar charts are separate, unstacked bar charts for each clinical care measure that show, separately for men and women, the percentage of beneficiaries in each racial and ethnic group whose care met the standard called for by the specific measure.

For detailed information on data sources and analytic methods, see the appendix.

# **Section I: Racial and Ethnic Disparities in Health Care in Medicare Advantage**

## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 8) for which members of selected groups reported experiences that were worse than, similar to, or better than the experiences reported by Whites in 2016



**Data source and chart notes:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS survey. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

### AI/AN beneficiaries received worse care than White beneficiaries

- Getting needed care
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs
- Getting information about prescription drugs
- Annual flu vaccine

### API beneficiaries received worse care than White beneficiaries

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs
- Getting information about prescription drugs

**API beneficiaries received better care than White beneficiaries**

- Annual flu vaccine

**Black beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Annual flu vaccine

**Hispanic beneficiaries received worse care than White beneficiaries**

- Getting appointments and care quickly
- Getting information about prescription drugs
- Annual flu vaccine

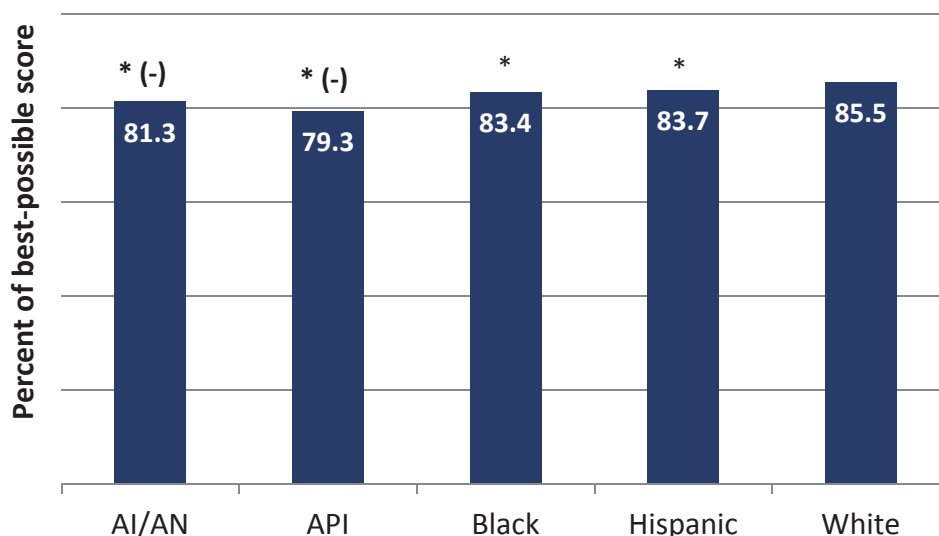
The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < .05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial/ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude. C. A. Paddison, M. N. Elliott, A. M. Haviland, D. O. Farley, G. Lyratzopoulos, K. Hambarsoomian, J. W. Dembosky, and M. O. Roland, “Experiences of Care Among Medicare Beneficiaries with ESRD: Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Survey Results,” *American Journal of Kidney Diseases*, Vol. 61, 2013, pp. 440–449.

## Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse<sup>††</sup> experiences getting needed care than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks and Hispanics also reported worse experiences getting needed care than Whites reported, but the difference between each of these groups and Whites was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

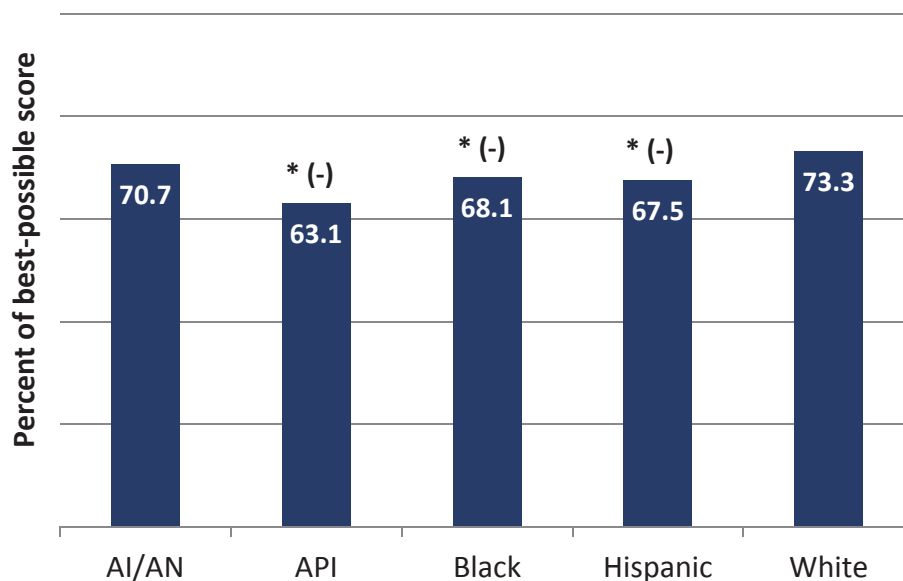
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often health plan customer service staff provide the information or the help that beneficiaries need, how often beneficiaries are treated with courtesy and respect, and how often forms from the health plan are easy to fill out.

<sup>††</sup> Unlike on the preceding page, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics reported worse experiences getting appointments and care quickly than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- American Indians or Alaska Natives reported experiences getting appointments and care quickly that were similar to the experiences Whites reported.

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\* Significantly different from the score for Whites ( $p < .05$ ).

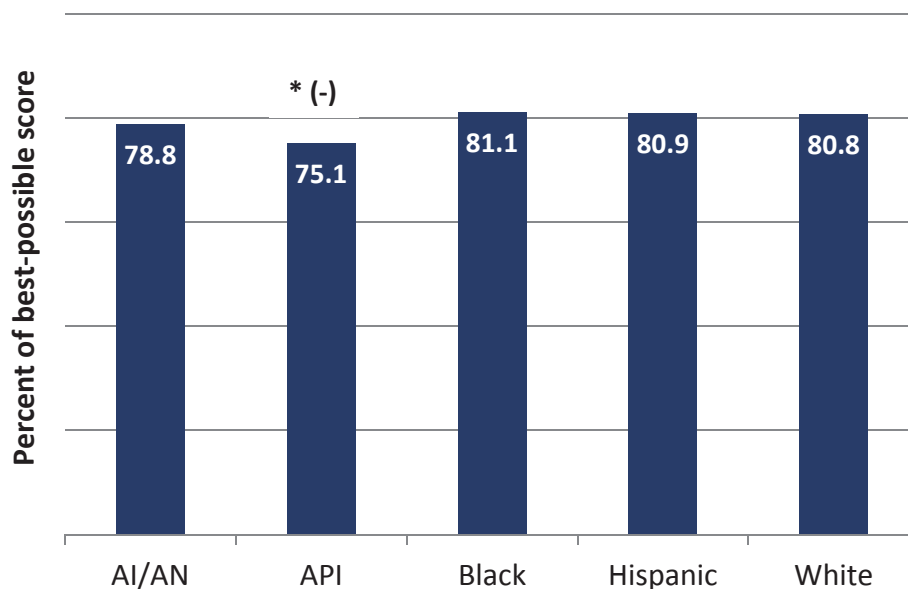
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how easy it is to get care that is needed right away, as well as how easy it is to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders reported worse experiences with customer service than Whites reported. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0–100 scale.
- American Indians or Alaska Natives, Blacks, and Hispanics reported experiences with customer service that were similar to the experiences that Whites reported.

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\* Significantly different from the score for Whites ( $p < .05$ ).

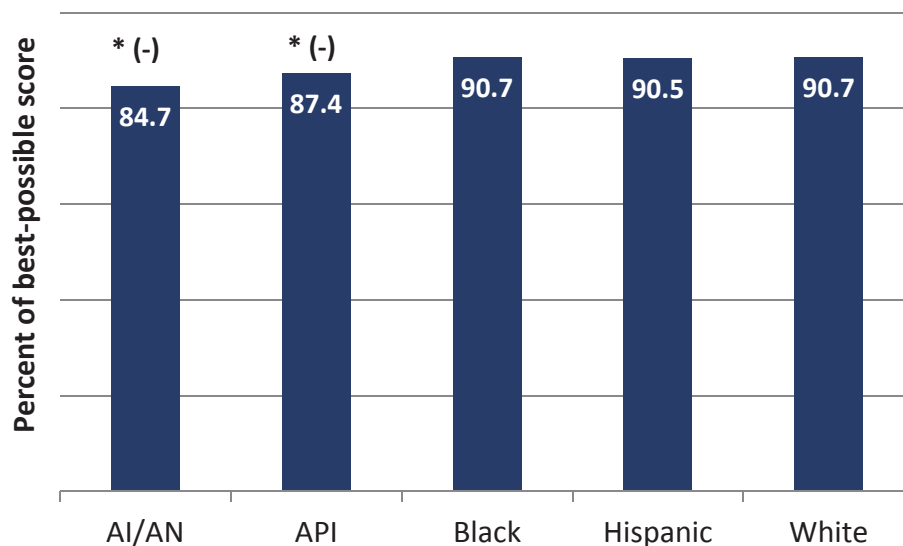
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often health plan customer service staff provide the information or the help that beneficiaries need, how often beneficiaries are treated with courtesy and respect, and how often forms from the health plan are easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse experiences with doctor communication than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks and Hispanics reported experiences with doctor communication that were similar to the experiences that Whites reported.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

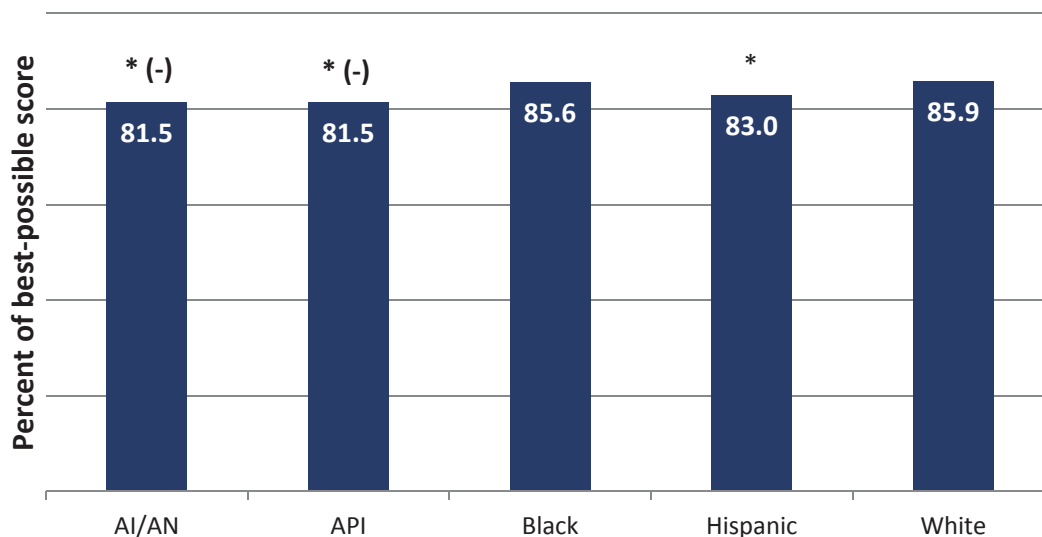
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often doctors explain things in a way that is easy to understand, listen carefully, show respect for what patients have to say, and spend time with patients.



## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patients' care was coordinated,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse experiences with care coordination than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Hispanics reported worse experiences with care coordination than Whites reported, but the difference between Hispanics and Whites was less than 3 points on a 0–100 scale.
- Blacks reported experiences with care coordination that were similar to the experiences that Whites reported.

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\* Significantly different from the score for Whites ( $p < .05$ ).

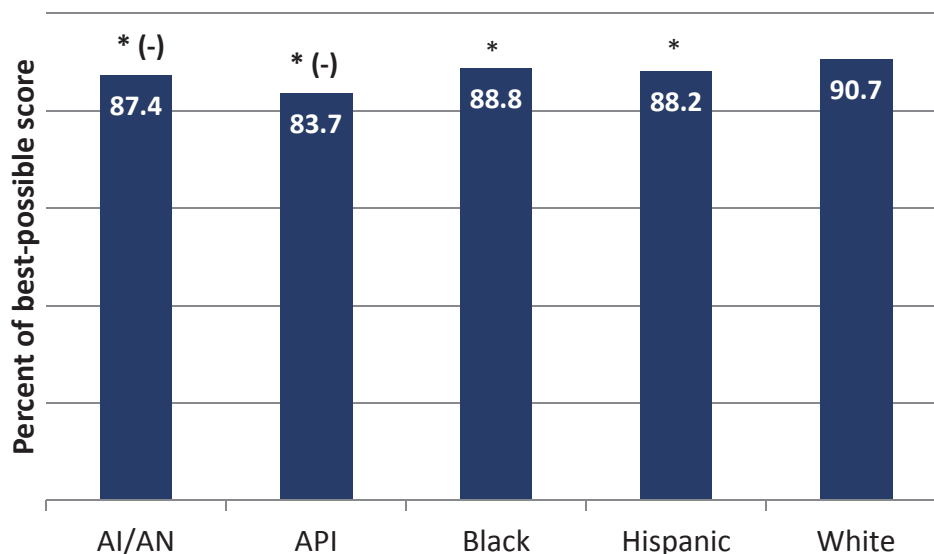
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes whether doctors had the records and information they need about patients' care and how quickly patients got their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives and Asians or Pacific Islanders reported worse experiences getting needed prescription drugs than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks and Hispanics reported worse experiences getting needed prescription drugs than Whites reported, but the difference between each of these groups and Whites was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

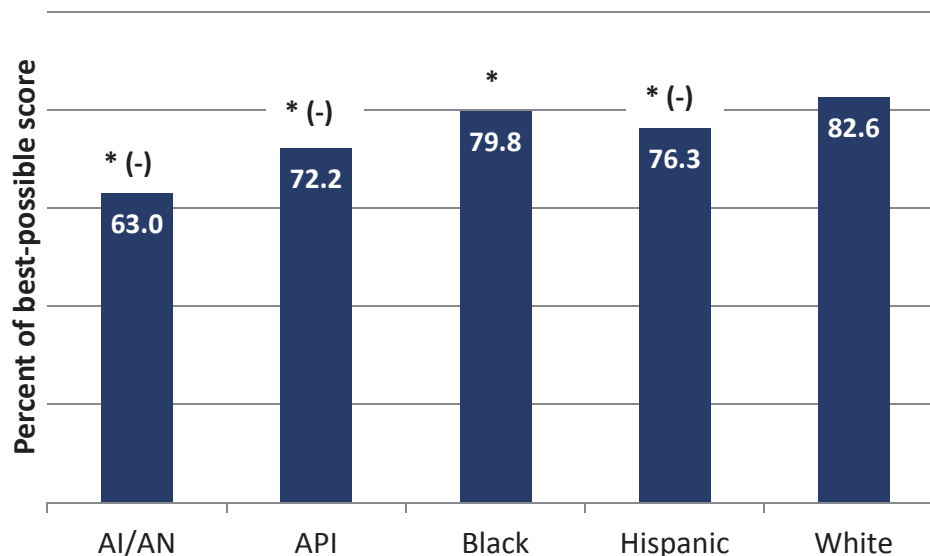
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often it is easy to use the plan to get prescribed medications and how easy it is to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Getting Information About Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it was for beneficiaries to get information from their plan about prescription drug coverage and cost,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- American Indians or Alaska Natives, Asians or Pacific Islanders, and Hispanics reported worse experiences getting information about prescription drugs than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0–100 scale.
- Blacks reported worse experiences getting information about prescription drugs than Whites reported, but the difference between Blacks and Whites was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

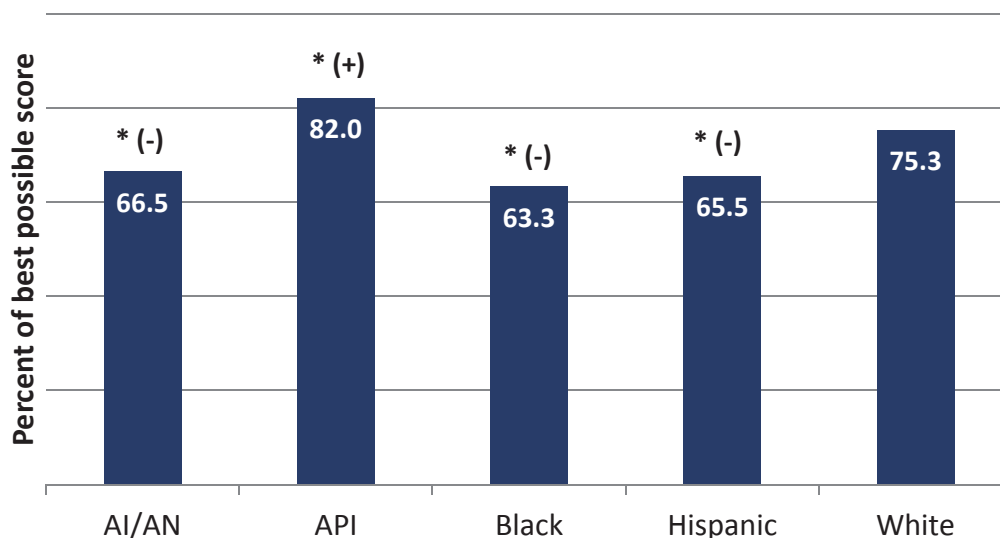
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes information about which prescription medications are covered by plans and how much beneficiaries have to pay for their prescription medications.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race/ethnicity, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. AI/AN = American Indian or Alaska Native. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders were more likely than Whites to have been vaccinated prior to the flu season. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- American Indians or Alaska Natives, Blacks, and Hispanics were less likely than Whites to have been vaccinated prior to the flu season. The difference between each of these groups and Whites was greater than 3 percentage points.

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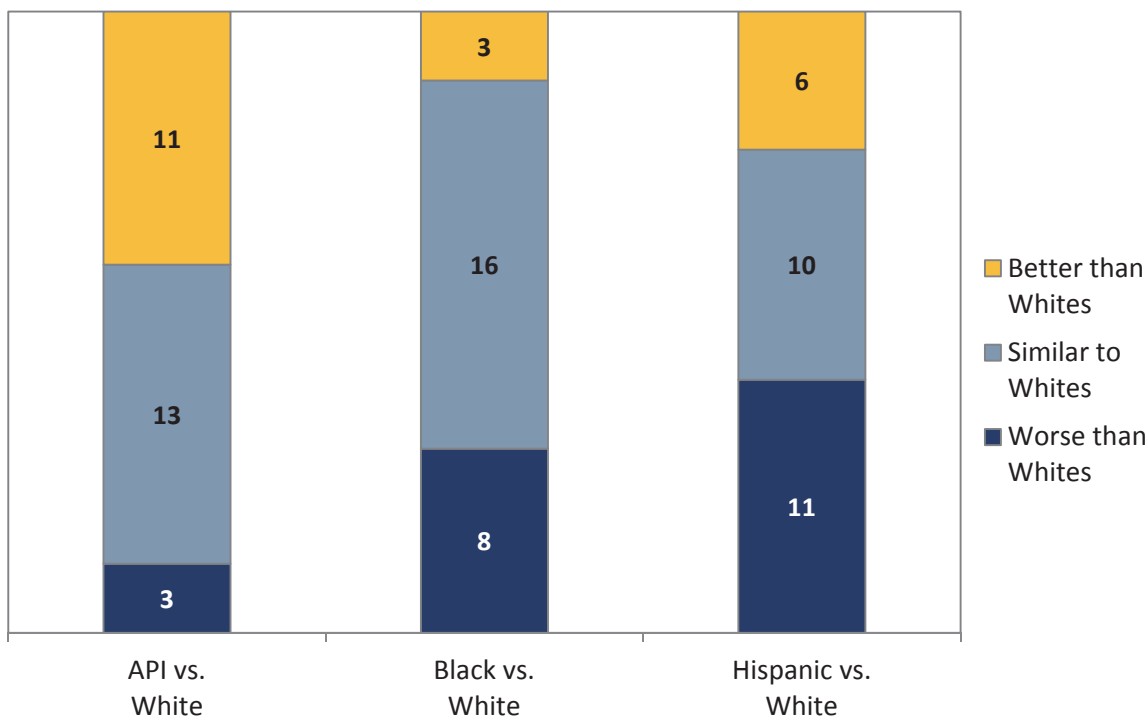
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 27) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites in 2016



**Data source and chart notes:** This chart summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

### API beneficiaries received worse care than White beneficiaries

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

### API beneficiaries received better care than White beneficiaries

- Colorectal cancer screening
- Breast cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Osteoporosis management in women who had a fracture
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black beneficiaries received worse care than White beneficiaries**

- Diabetes care—blood sugar controlled
- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic beneficiaries received worse care than White beneficiaries**

- Diabetes care—blood sugar controlled
- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**Hispanic beneficiaries received better care than White beneficiaries**

- Breast cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Osteoporosis management in women who had a fracture
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

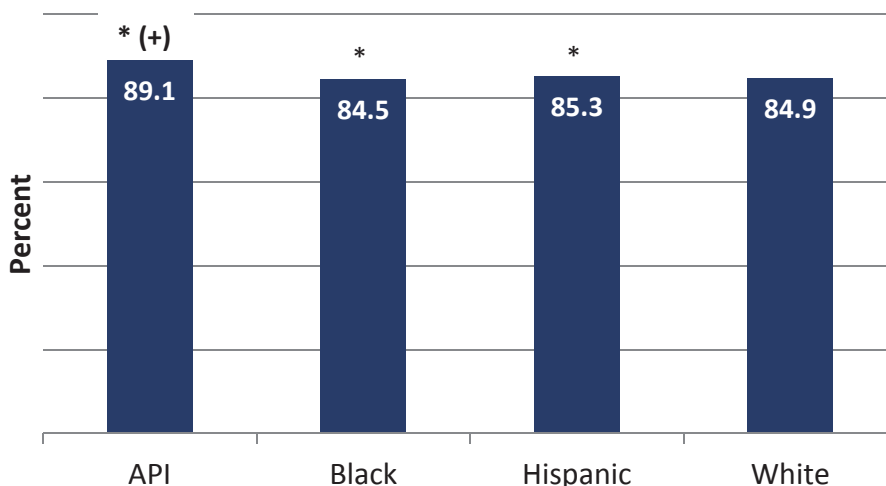
The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < .05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial/ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

A difference that is considered to be of moderate magnitude. Paddison et al., 2013.

## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics were more likely than Whites to have been appropriately screened for colorectal cancer. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- Blacks were less likely than Whites to have been appropriately screened for colorectal cancer. The difference between Blacks and Whites was less than 3 percentage points.

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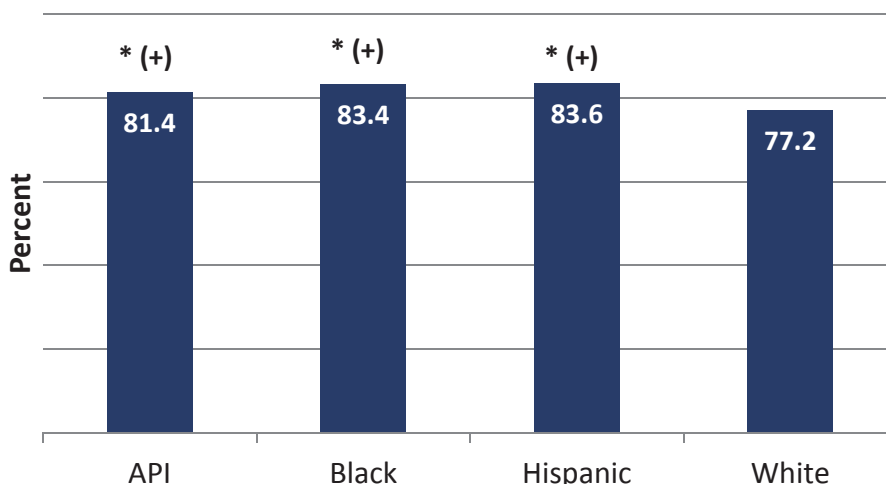
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Breast Cancer Screening

Percentage of Medicare enrollees (women) aged 50–74 years who had appropriate screening for breast cancer, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asian or Pacific Islander, Black, and Hispanic women were more likely than White women to have been appropriately screened for breast cancer. The difference between each of these groups of women and White women was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

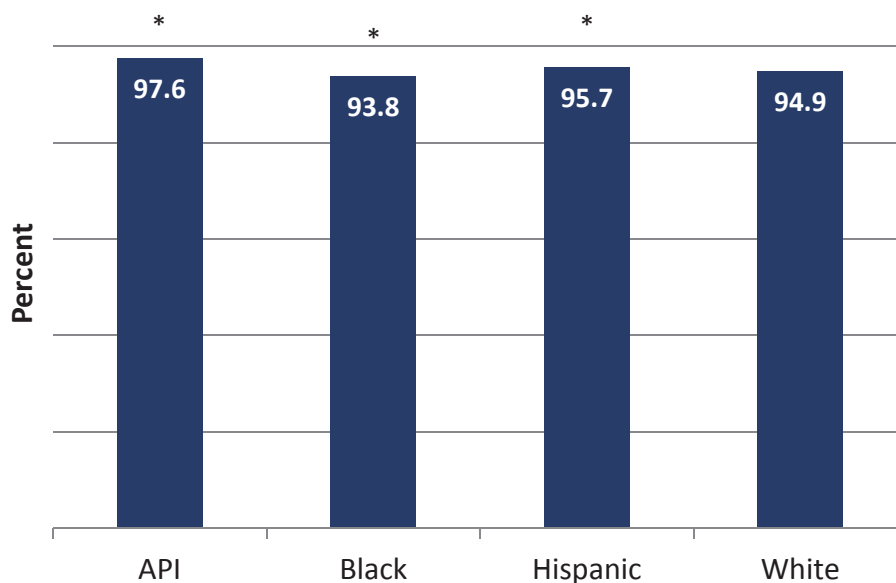
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites



## Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Blacks and Whites was less than 3 percentage points.

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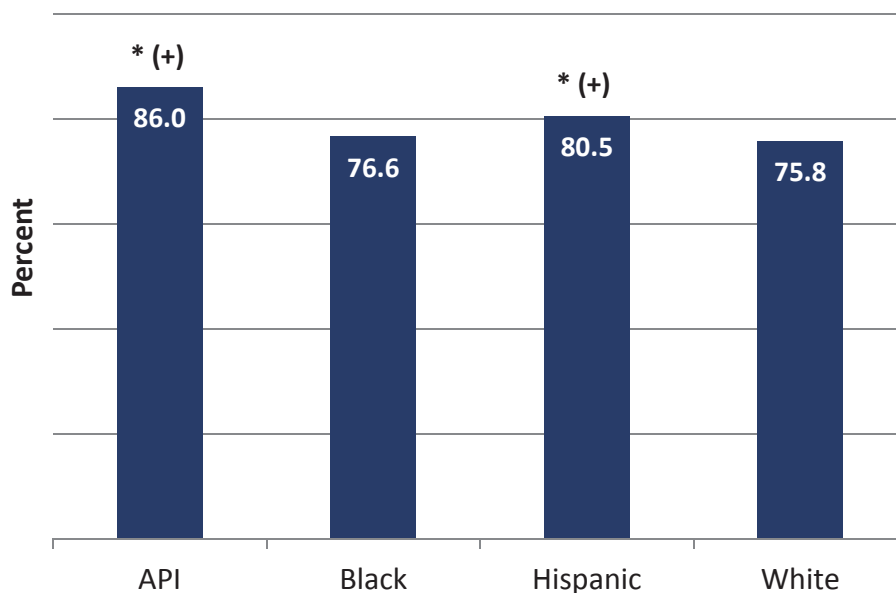
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had an eye exam in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were as likely as Whites with diabetes to have had an eye exam in the past year.

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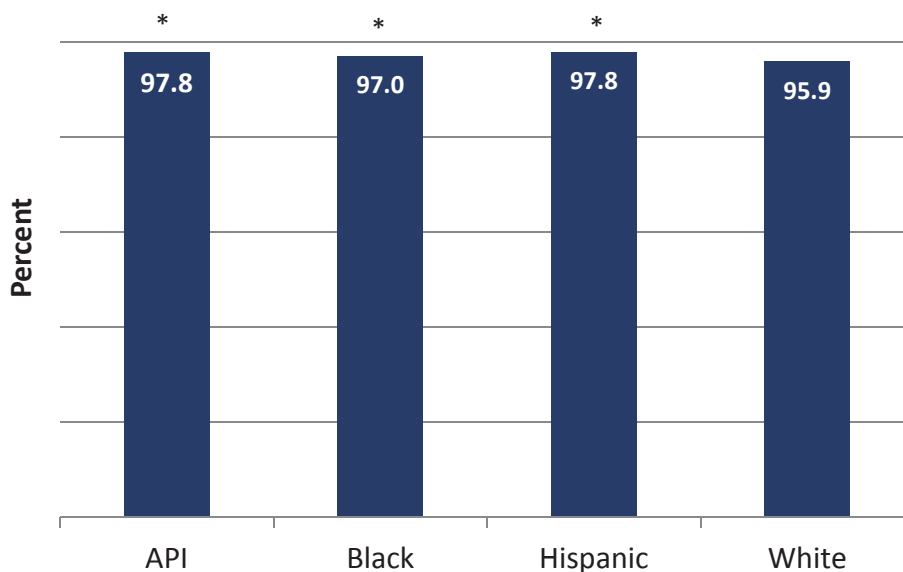
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics with diabetes were more likely than Whites with diabetes to have had medical attention for nephropathy in the past year. The difference between each of these groups and Whites was less than 3 percentage points.

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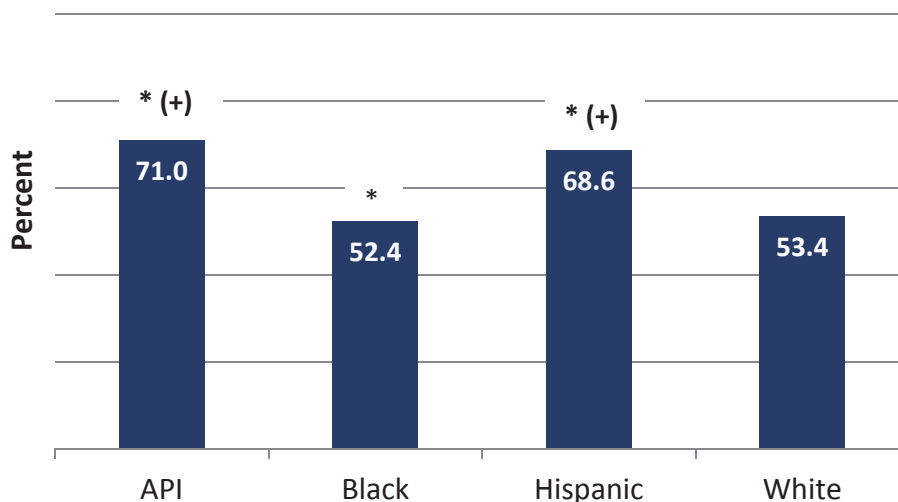
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood pressure under control. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with diabetes were less likely than Whites with diabetes to have their blood pressure under control, but the difference between these groups was less than 3 percentage points.

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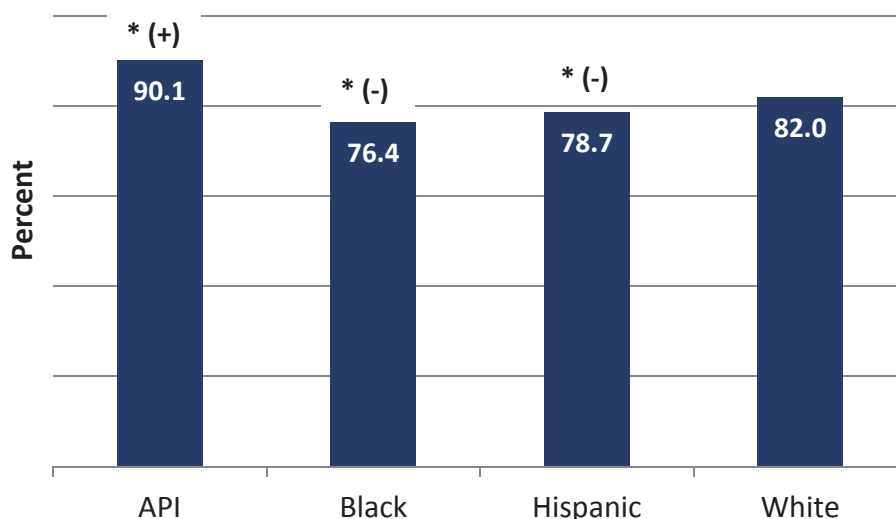
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have their blood sugar level under control. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have their blood sugar level under control. The difference between each of these groups and Whites was greater than 3 percentage points.

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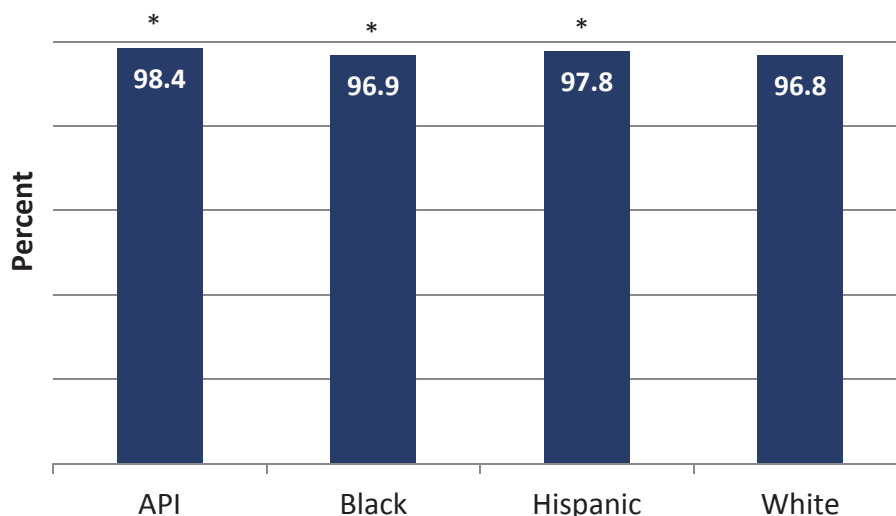
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Adult Body Mass Index Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit and whose body mass index (BMI) was documented in the past two years, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics were more likely than Whites to have had their BMI documented. The difference between each of these groups and Whites was less than 3 percentage points.

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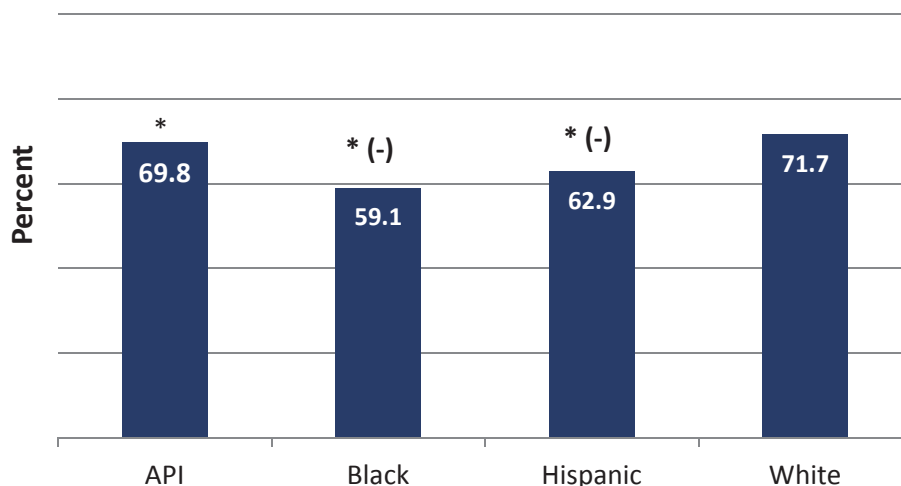
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years who had a diagnosis of hypertension and whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who had a diagnosis of hypertension were less likely than Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points. The difference between Blacks and Whites and between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

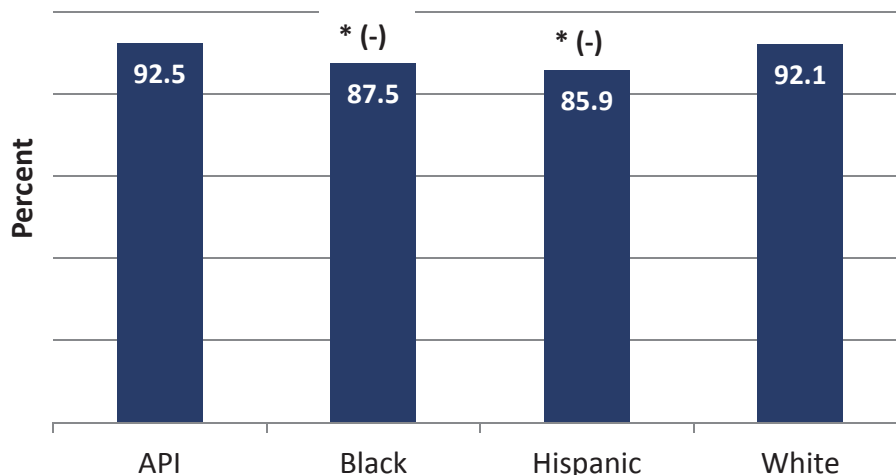
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Blacks and Hispanics who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between each of these groups and Whites was greater than 3 percentage points.
- Asians or Pacific Islanders who were hospitalized for a heart attack were as likely as Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment.

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\* Significantly different from the score for Whites ( $p < .05$ ).

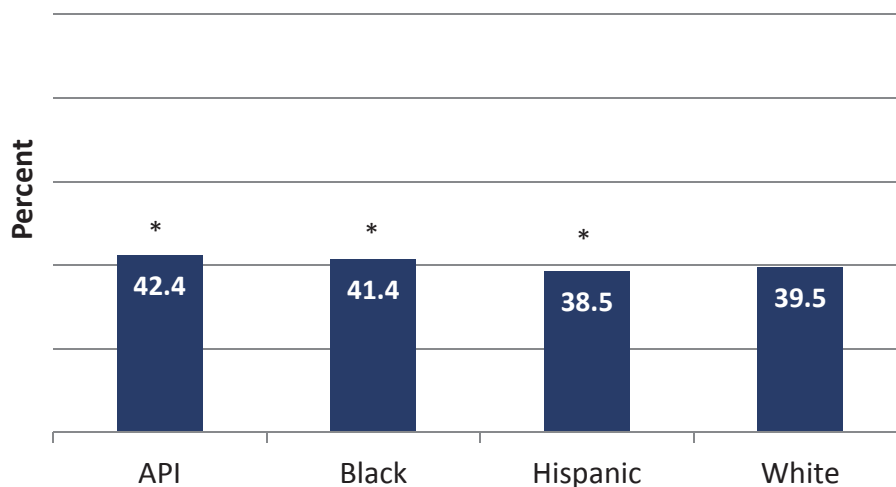
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites



## Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Blacks with a new diagnosis of COPD or newly active COPD were more likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between each of these groups and Whites was less than 3 percentage points.
- Hispanics with a new diagnosis of COPD or newly active COPD were less likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Hispanics and Whites was less than 3 percentage points.

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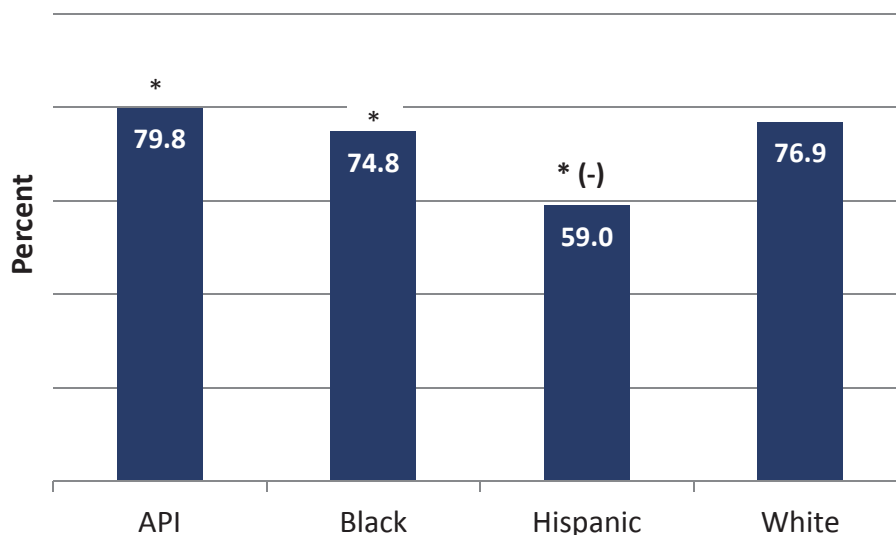
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation —Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- Blacks and Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Blacks and Whites was less than 3 percentage points. The difference between Hispanics and Whites was greater than 3 percentage points.

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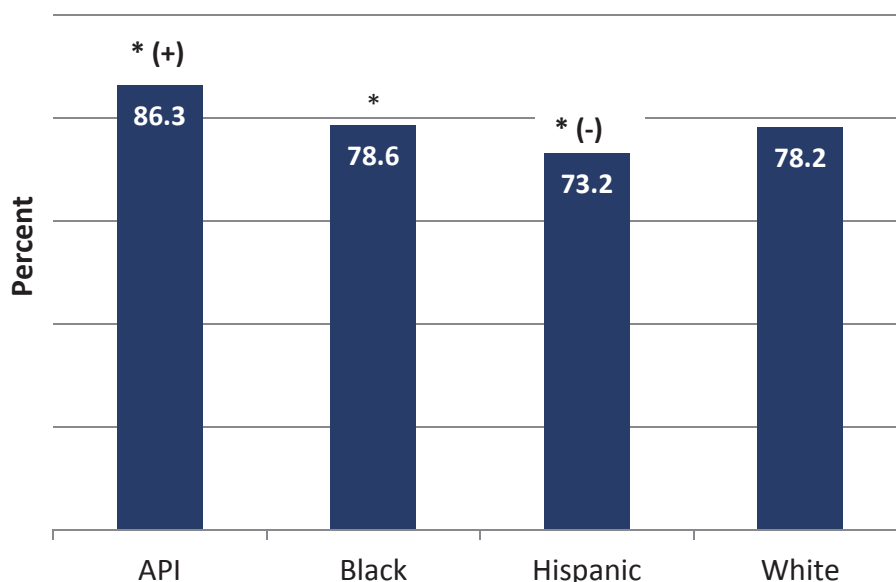
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation —Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Blacks who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Blacks and Whites was less than 3 percentage points.
- Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanics and Whites was greater than 3 percentage points.

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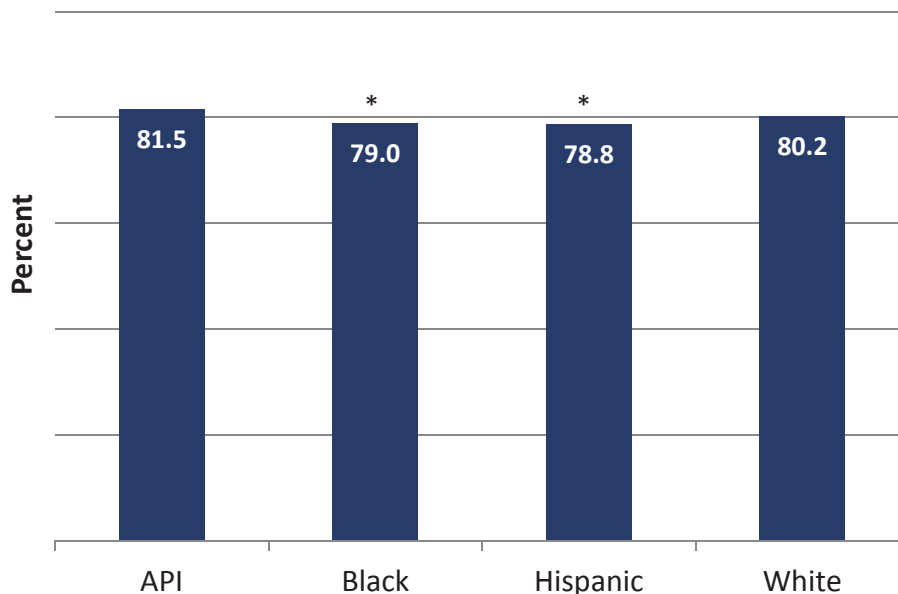
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least one ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Blacks and Hispanics who were diagnosed with rheumatic arthritis were less likely than Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between each of these groups and Whites was less than 3 percentage points.
- Asians or Pacific Islanders who were diagnosed with rheumatic arthritis were as likely as Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD.

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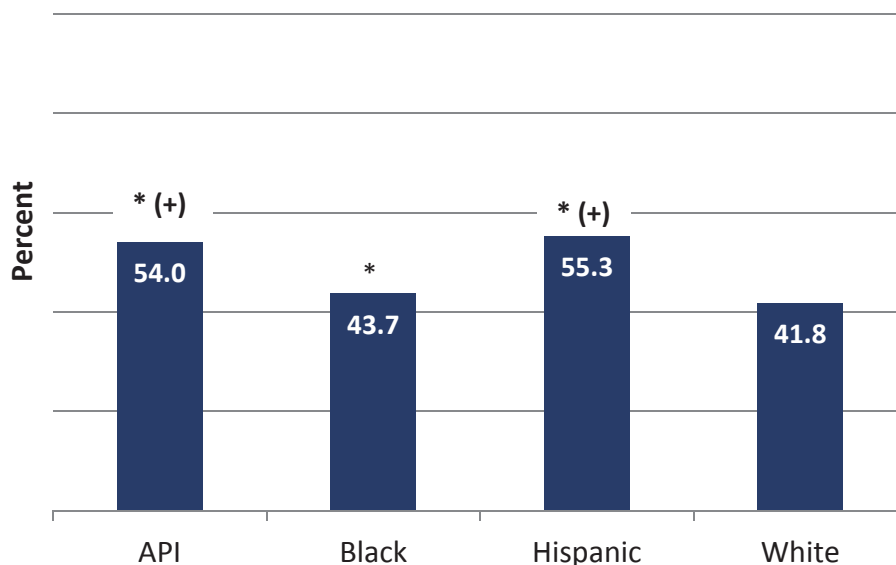
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Osteoporosis Management in Women Who Had a Fracture

Percentage of Medicare enrollees (women) aged 67–85 years who suffered a fracture and who had either a bone mineral density test or a prescription for a drug to treat osteoporosis in the six months after the fracture, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asian or Pacific Islander, Black, and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or a prescription for a drug to treat osteoporosis. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites. The difference between Blacks and Whites was less than 3 percentage points.

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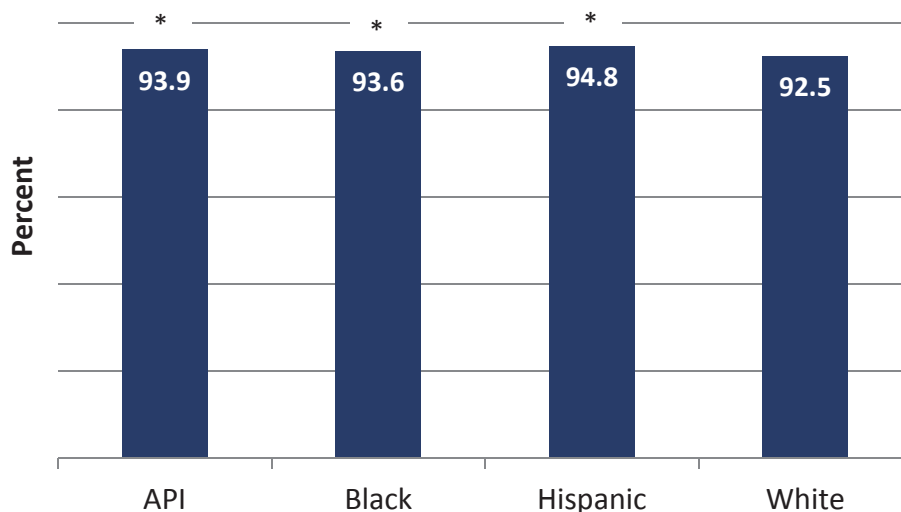
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least one therapeutic monitoring event for the therapeutic agent during the year, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics were more likely than Whites to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

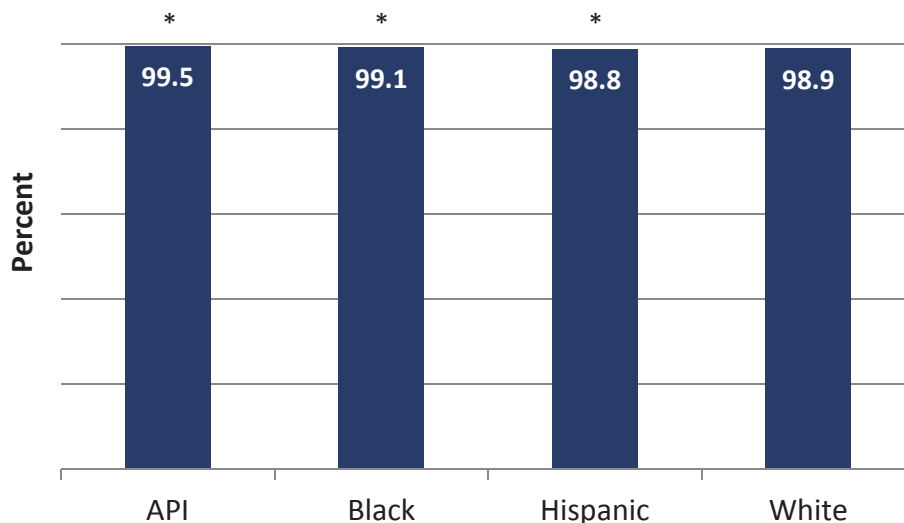
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for six months or longer: angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2016 data, it was observed that this standard of care was met more often for Asians or Pacific Islanders and Blacks than for Whites. The difference between each of these groups and Whites was less than 3 percentage points.
- In the 2016 data, it was observed that this standard of care was met less often for Hispanics than for Whites. The difference between Hispanics and Whites was less than 3 percentage points.

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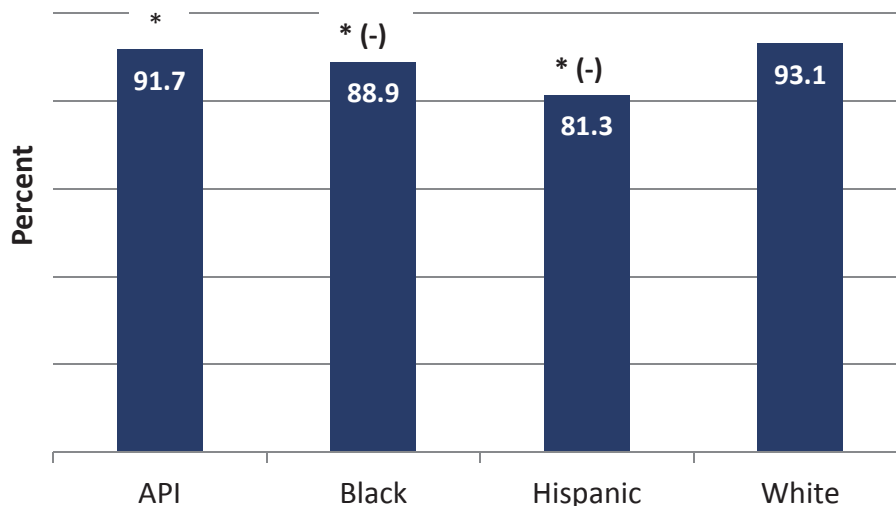
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Asians or Pacific Islanders, Blacks, and Hispanics with chronic renal failure were less likely than elderly Whites with chronic renal failure to have not been dispensed a potentially harmful medication. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points. The difference between Blacks and Whites was greater than 3 percentage points; the difference between Hispanics and Whites was also greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

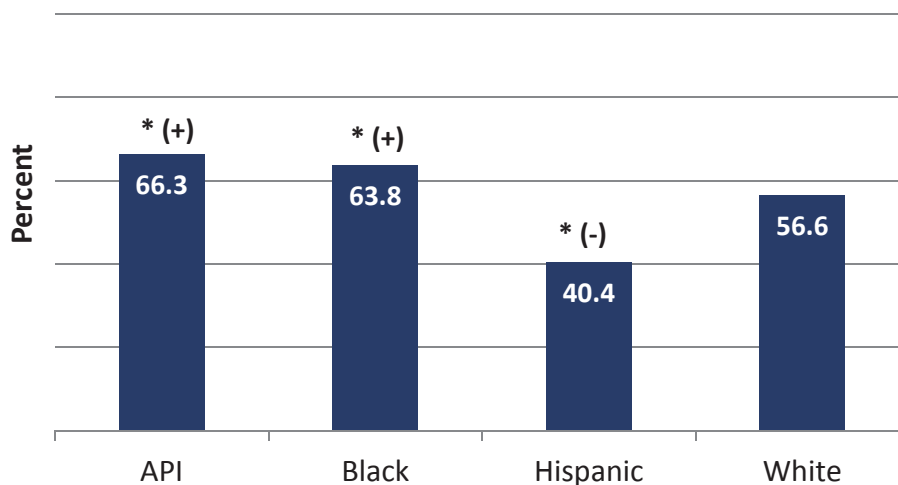
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes cyclooxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.



## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Asians or Pacific Islanders and Blacks with dementia were more likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- Elderly Hispanics with dementia were less likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between Hispanics and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

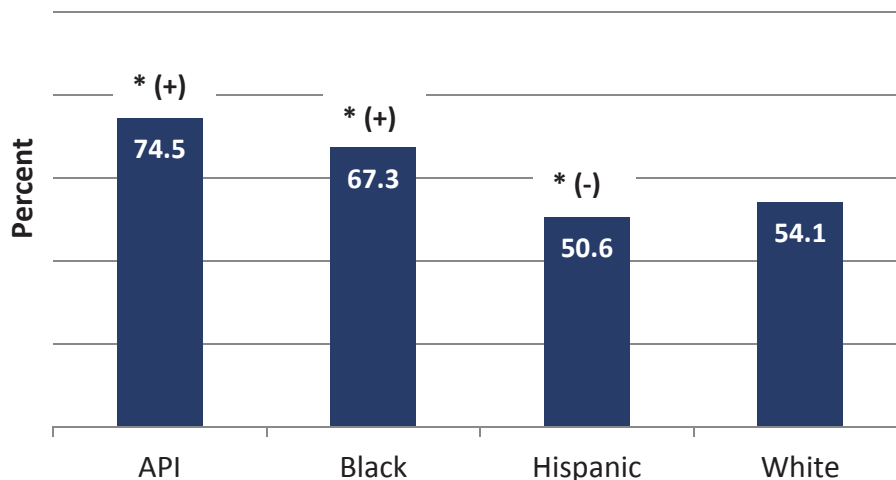
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Elderly Asians or Pacific Islanders and Blacks with a history of falls were more likely than elderly Whites with a history of falls to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- Elderly Hispanics with a history of falls were less likely than elderly Whites with a history of falls to have not been dispensed a potentially harmful medication. The difference between these groups was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

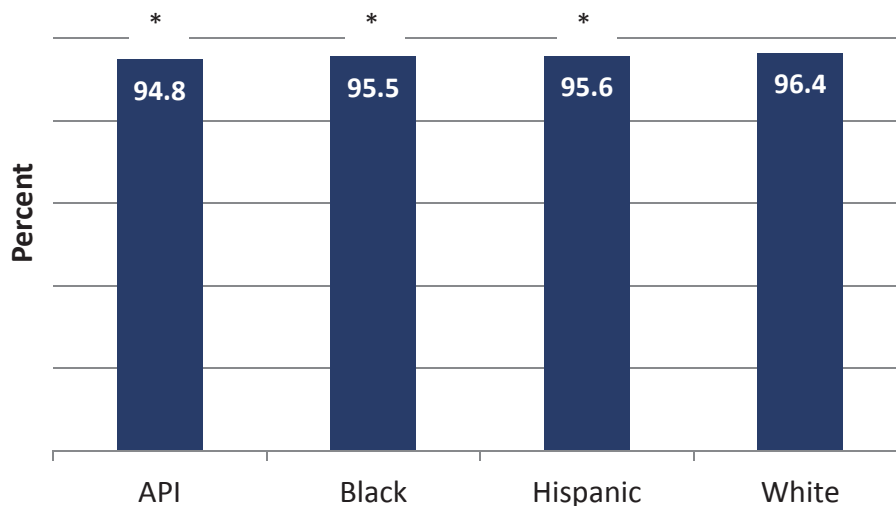
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics were less likely than Whites to have had an ambulatory or preventive care visit. The difference between each of these groups and Whites was less than 3 percentage points.

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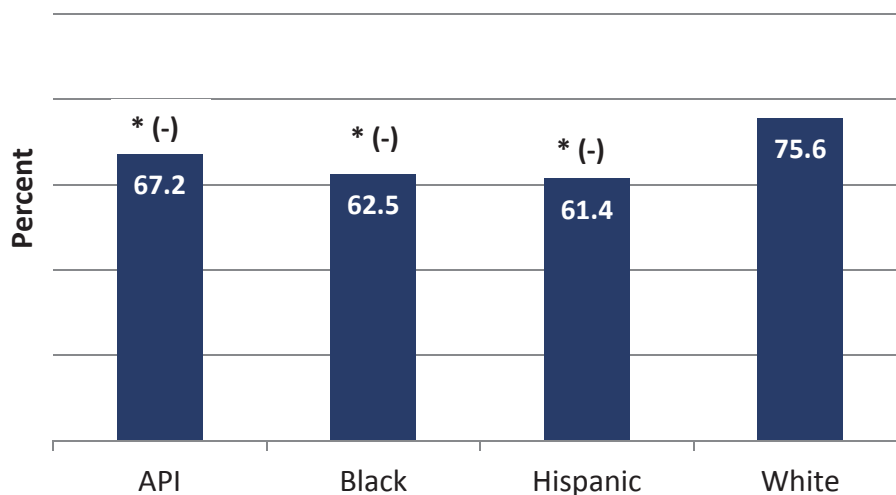
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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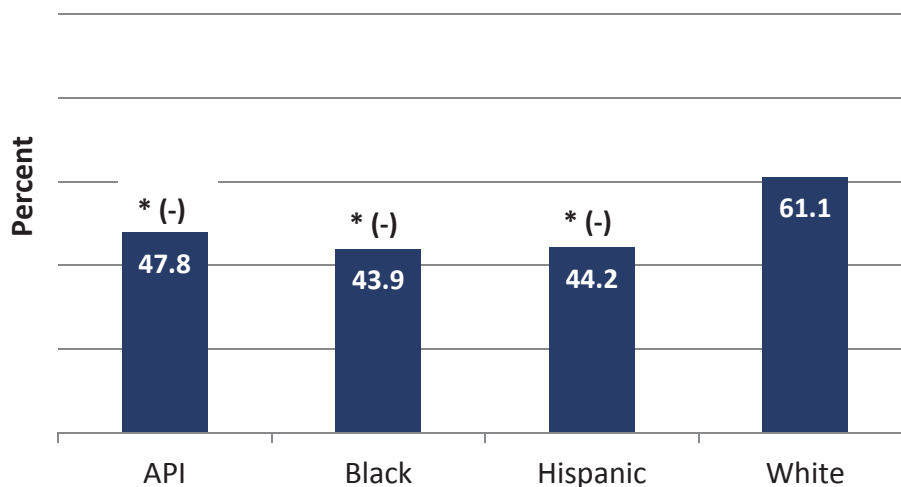
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Antidepressant Medication Management —Continuation Phase Treatment

Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The difference between each of these groups and Whites was greater than 3 percentage points.

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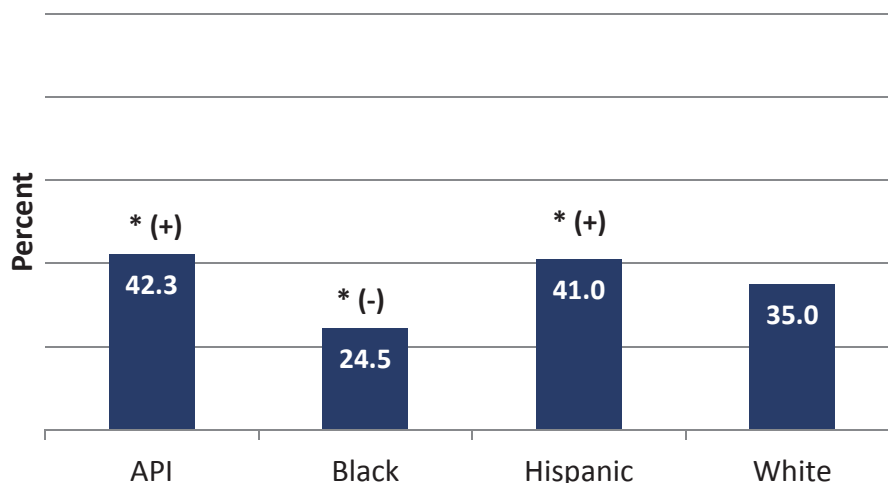
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

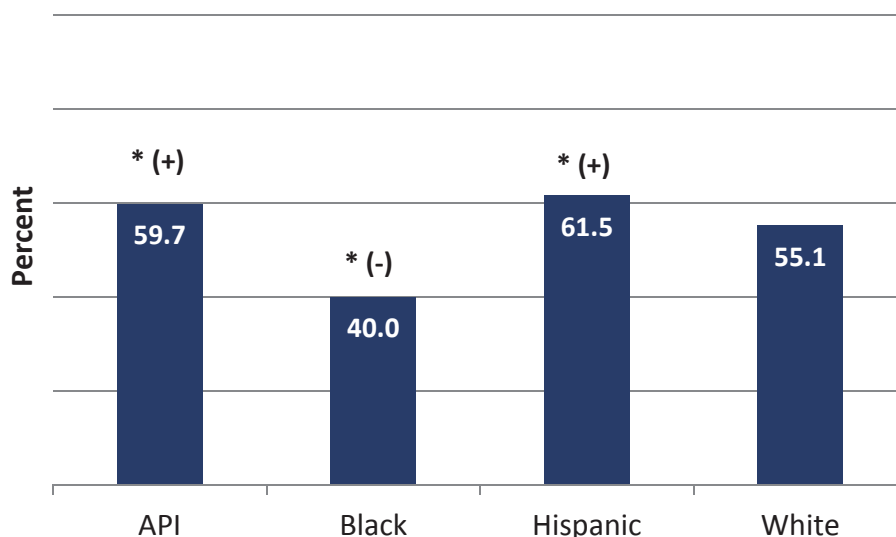
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between Blacks and Whites was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

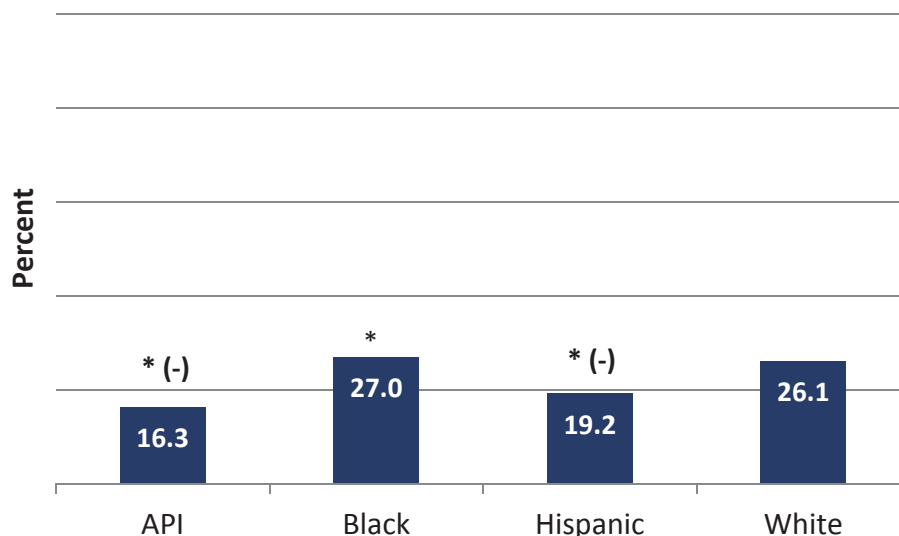
For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of alcohol or drug (AOD) dependence who initiate<sup>‡</sup> treatment within 14 days of the diagnosis, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence were less likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- Blacks with a new episode of AOD dependence were more likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Blacks and Whites was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

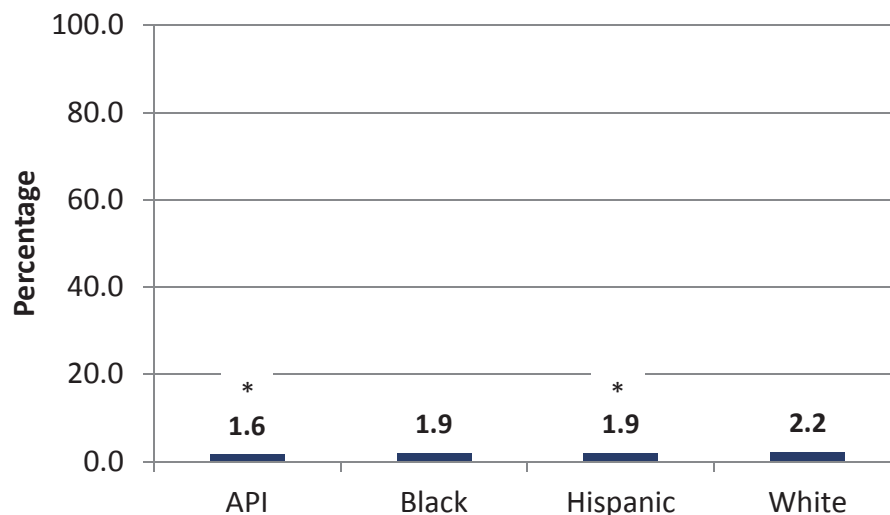
<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.



## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit, by race/ethnicity, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence and who initiated treatment were less likely than Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The difference between each of these groups and Whites was less than 3 percentage points.
- Blacks with a new episode of AOD dependence and who initiated treatment were as likely as Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

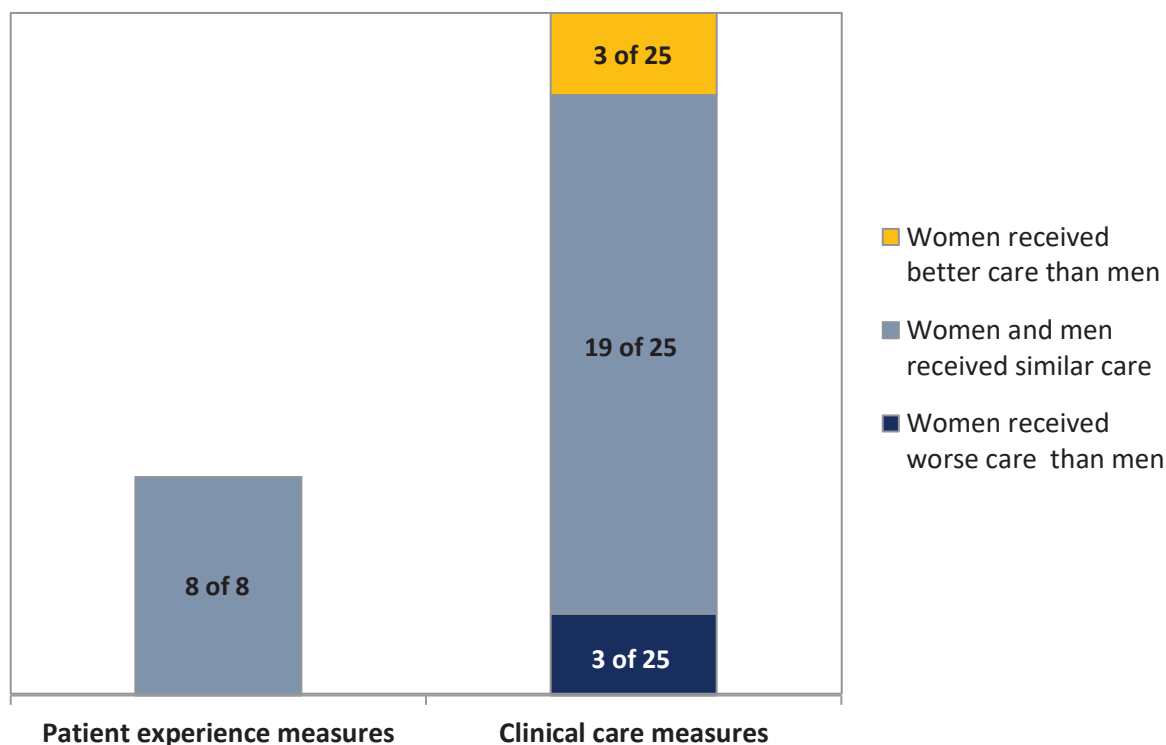
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

## **Section II: Gender Disparities in Health Care in Medicare Advantage**

## Disparities in Care: All Patient Experience and Clinical Care Measures

Number of patient experience measures (out of 8) and clinical care measures (out of 25) for which women received care that was worse than, similar to, or better than the care received by men in 2016



**Data source:** The bar on the left (patient experience measures) summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS survey. The bar on the right (clinical care measures) summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide.

### Women received worse clinical care than men

- Avoiding potentially harmful drug-disease interactions in patients with dementia
- Avoiding potentially harmful drug-disease interactions in patients with a history of falls
- Initiation of alcohol or other drug treatment

### Women received better clinical care than men

- Pharmacotherapy management of COPD exacerbation—bronchodilator
- Follow-up visit after hospital stay for mental illness (within seven days of discharge)
- Follow-up visit after hospital stay for mental illness (within 30 days of discharge)

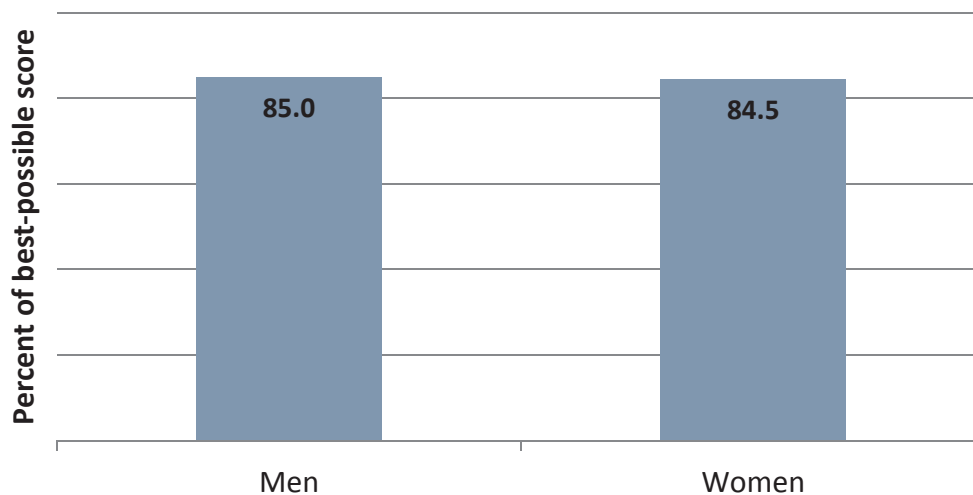
The relative difference between men and women is used to assess disparities.

- **Better** = Women received better care than men. Differences are statistically significant ( $p < .05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor women.
- **Similar** = Women and men received care of similar quality. Differences are less than 3 points on a 0–100 scale (differences greater than 3 points were always statistically significant). Differences may be statistically significant.
- **Worse** = Women received worse care than men. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor men.

<sup>†</sup> A difference that is considered to be of moderate magnitude. Paddison et al., 2013.

## Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

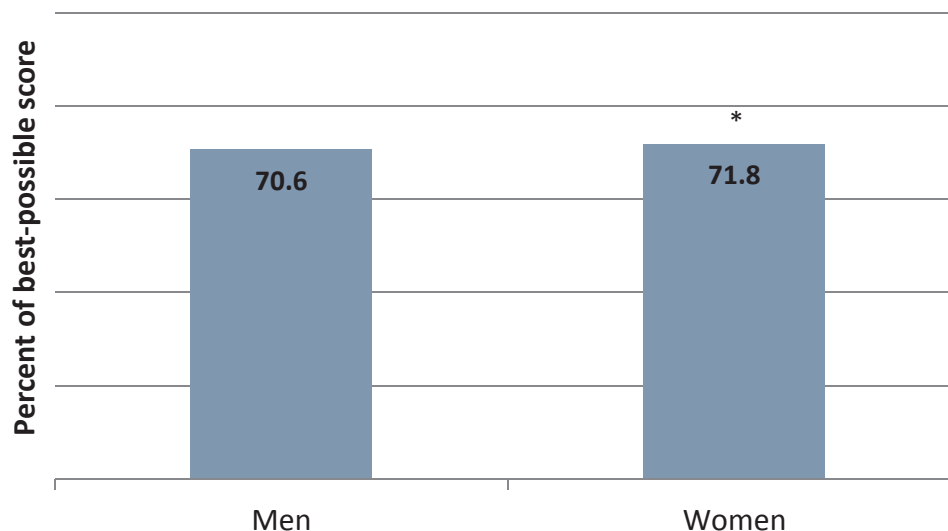
- Women reported experiences getting needed care that were similar to the experiences men reported.

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<sup>†</sup> This includes how easy it is to get appointments with specialists and how easy it is to get needed care, tests, or treatment.

## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

- Women reported better<sup>‡</sup> experiences with getting appointments and care quickly than men did, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

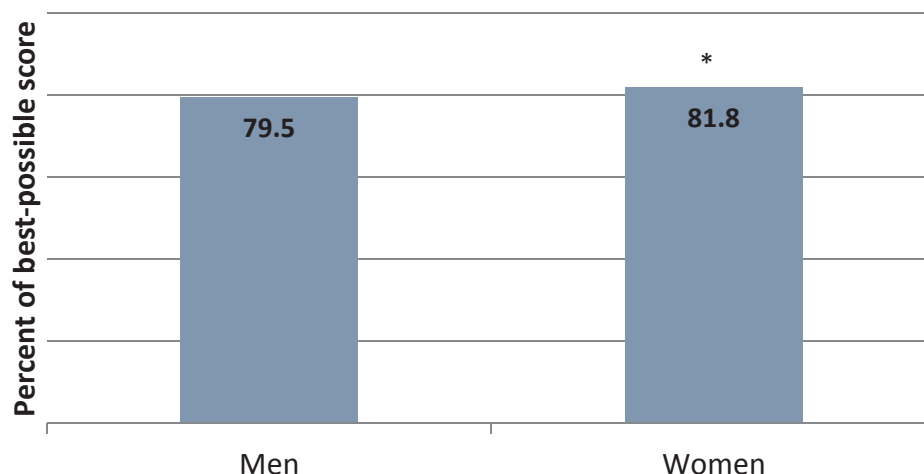
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes how easy it is to get care that is needed right away, as well as how easy it is to get appointments for checkups and routine care.

<sup>‡</sup> Unlike on page 52, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

- Women reported better experiences with customer service than men did, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

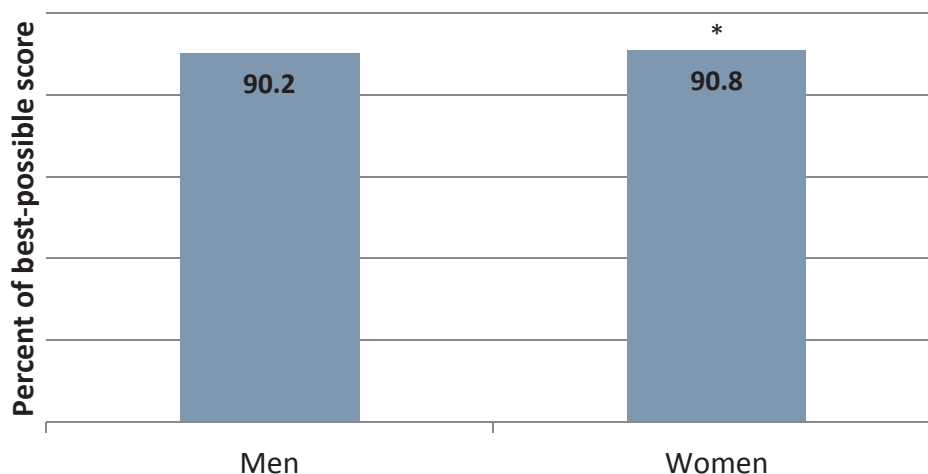
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes how often health plan customer service staff provide the information or the help that beneficiaries need, how often beneficiaries are treated with courtesy and respect, and how often forms from the health plan are easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

- Women reported better experiences with doctor communication than men reported, but the difference between women and men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

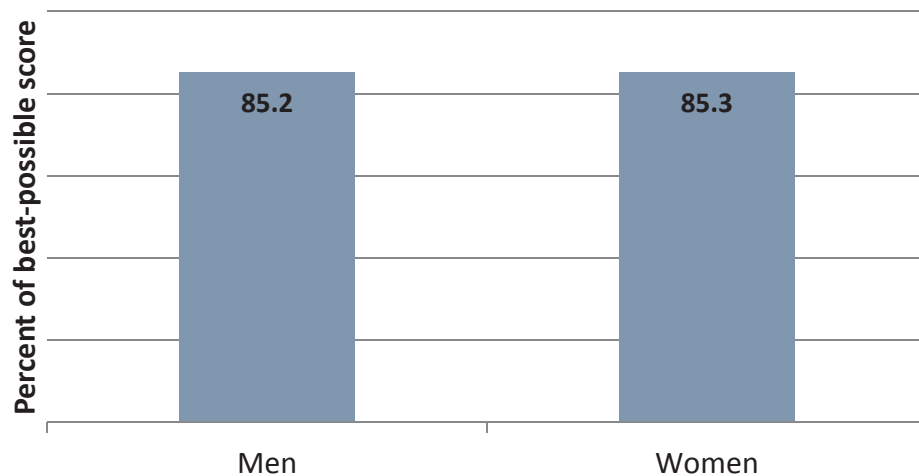
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors women

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes how often doctors explain things in a way that is easy to understand, listen carefully, show respect for what patients have to say, and spend time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care is coordinated,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

- Care coordination experiences reported by women were similar to care coordination experiences reported by men.

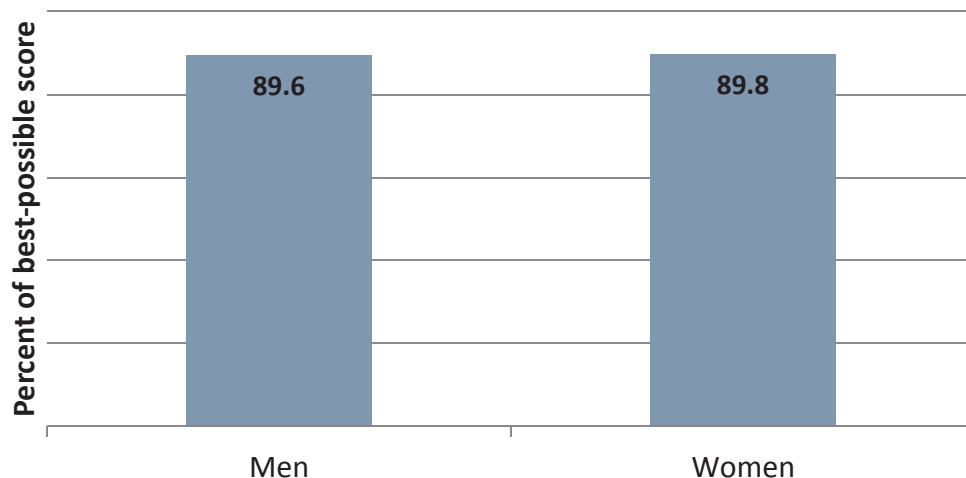
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<sup>†</sup> This includes how often doctors have the records and information they need about patients' care and how quickly patients receive their test results.



## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

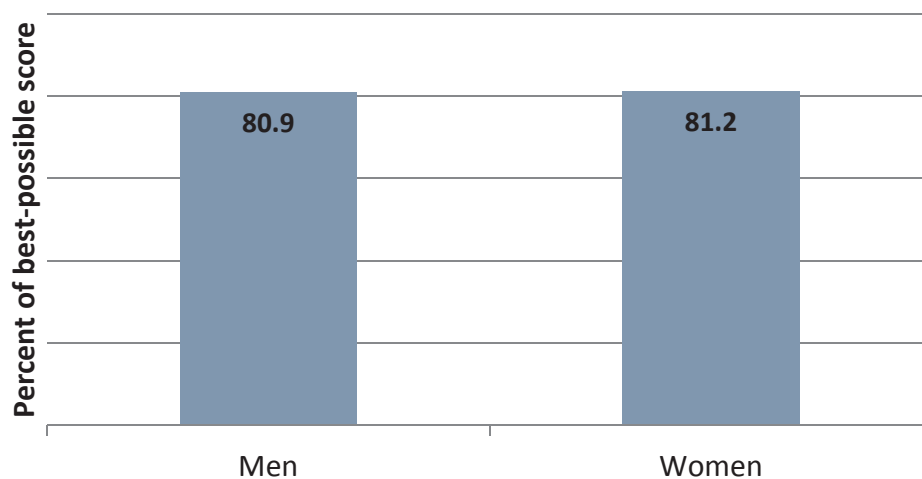
- Women reported experiences with getting needed prescription drugs that were similar to the experiences reported by men.

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<sup>†</sup> This includes how often it is easy to use the plan to get prescribed medications and how easy it is to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Getting Information About Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it was for beneficiaries to get information from their plans about prescription drug coverage and cost,<sup>†</sup> by gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016.

### Disparities

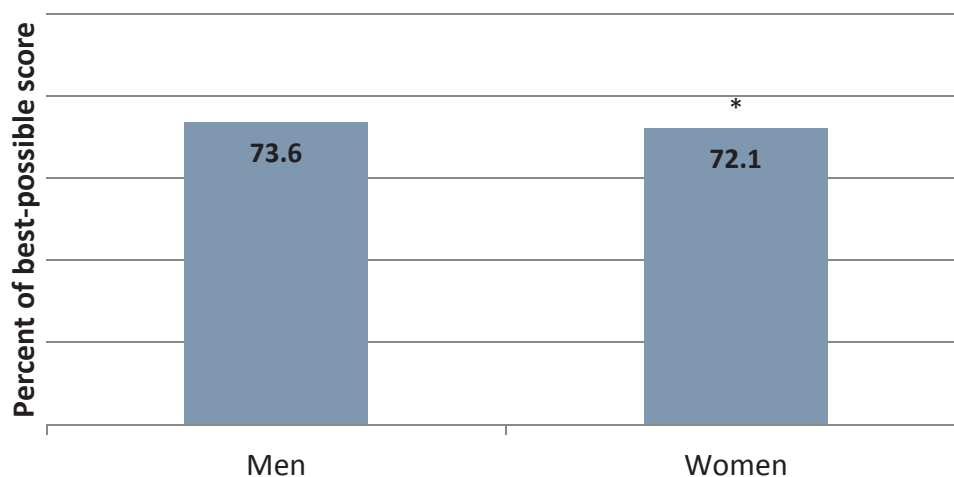
- Women reported experiences with getting information about prescription drugs that were similar to the experiences reported by men.

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<sup>†</sup> This includes information about which prescription medications are covered by plans and how much beneficiaries have to pay for their prescription medications.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by gender, 2016



NOTE: Data from the Medicare CAHPS survey, 2016.

### Disparities

- Women were less likely than men to have received the flu vaccine, but the difference between women and men was less than 3 points on a 0–100 scale.

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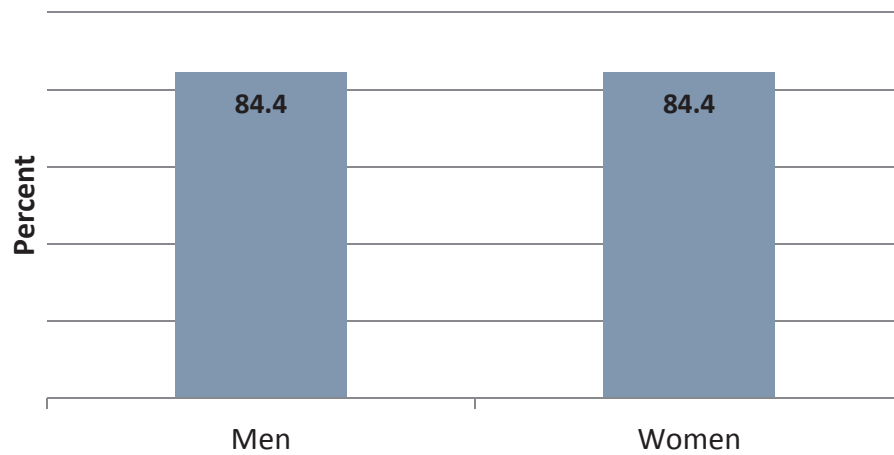
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by gender, 2016



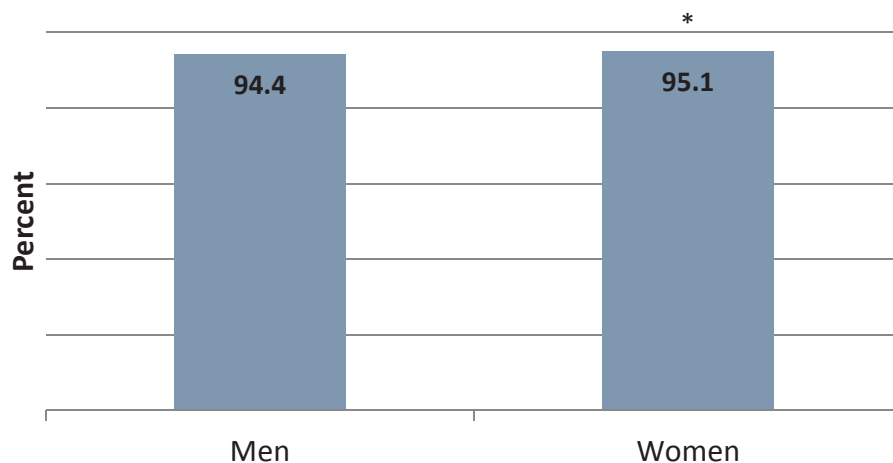
**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women were as likely as men to have been appropriately screened for colorectal cancer.

## Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have had their blood sugar tested at least once in the past year. The difference between women and men was less than 3 percentage points.

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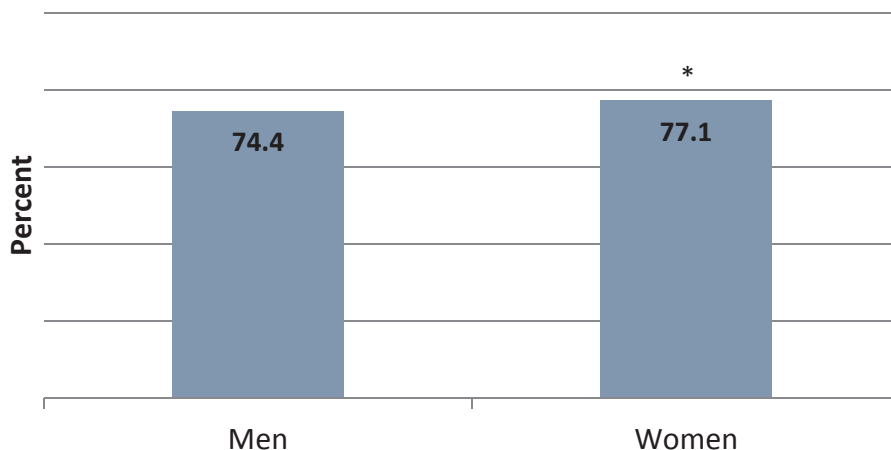
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
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## Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have had an eye exam in the past year. The difference between women and men was less than 3 percentage points.

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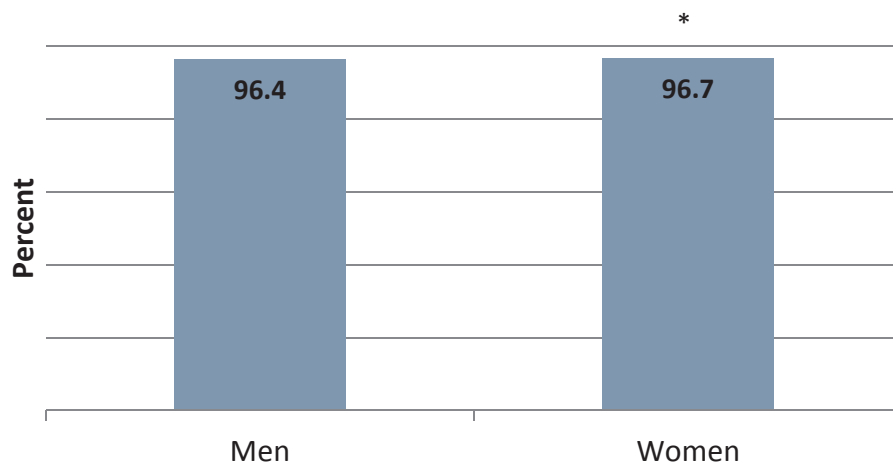
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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## Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with diabetes were more likely than men with diabetes to have had medical attention for nephropathy in the past year. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with diabetes were less likely than men with diabetes to have their blood pressure under control. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men



## Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by gender, 2016



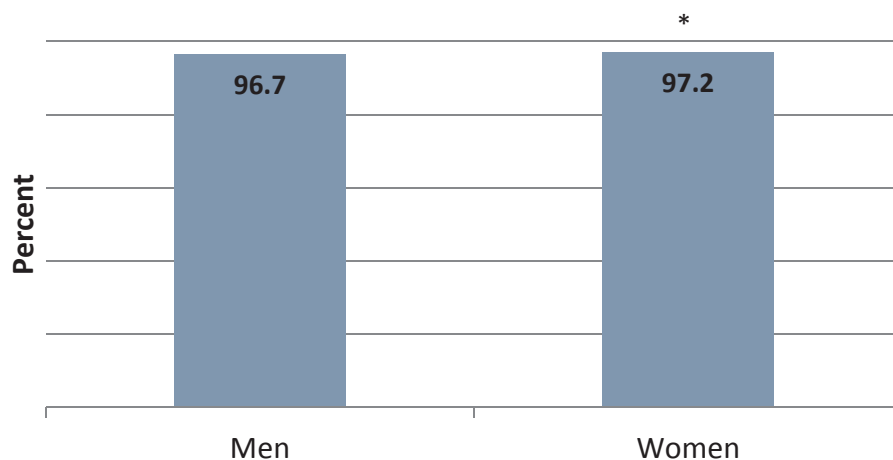
**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with diabetes were as likely as men with diabetes to have their blood sugar levels under control.

## Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit and whose BMI was documented in the past two years, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women were more likely than men to have had their BMIs documented. The difference between women and men was less than 3 percentage points.

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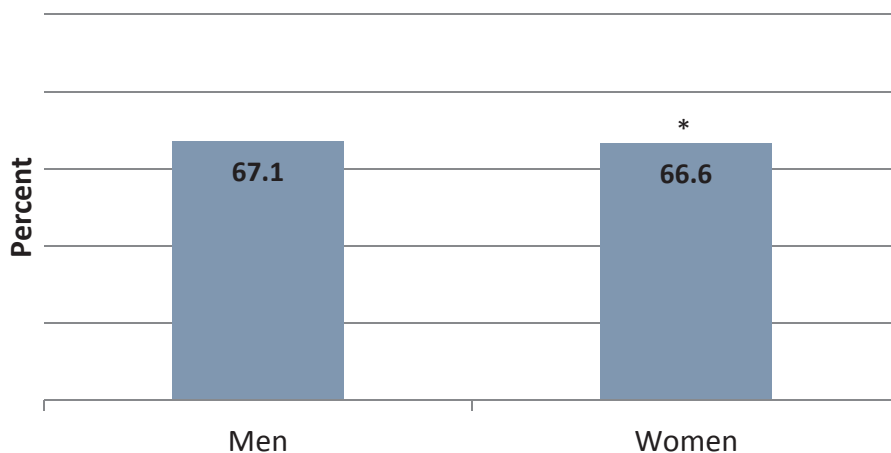
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years who had a diagnosis of hypertension and whose blood pressure was adequately controlled<sup>†</sup> during the past year, by gender, 2016



**Note:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who had a diagnosis of hypertension were less likely than men who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

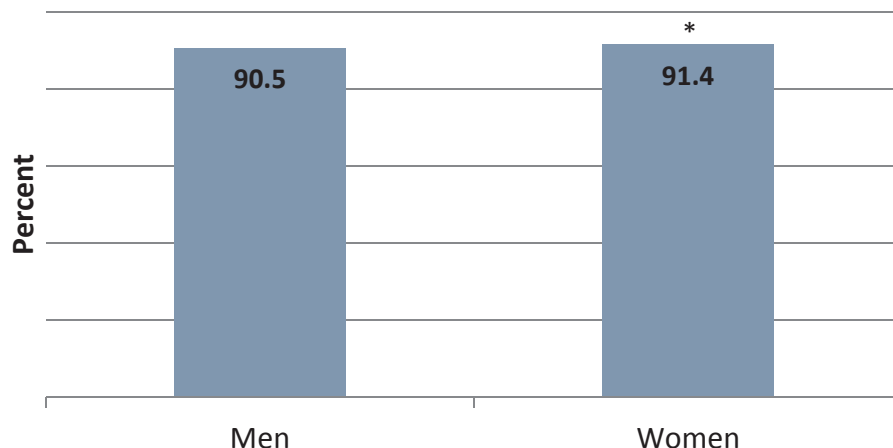
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were hospitalized for a heart attack were more likely than men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between women and men was less than 3 percentage points.

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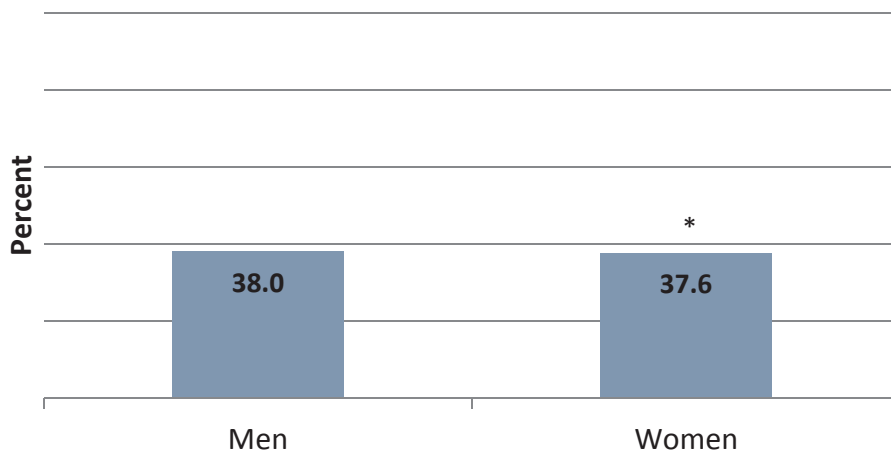
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with a new diagnosis of COPD or newly active COPD were less likely than men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between women and men was less than 3 percentage points.

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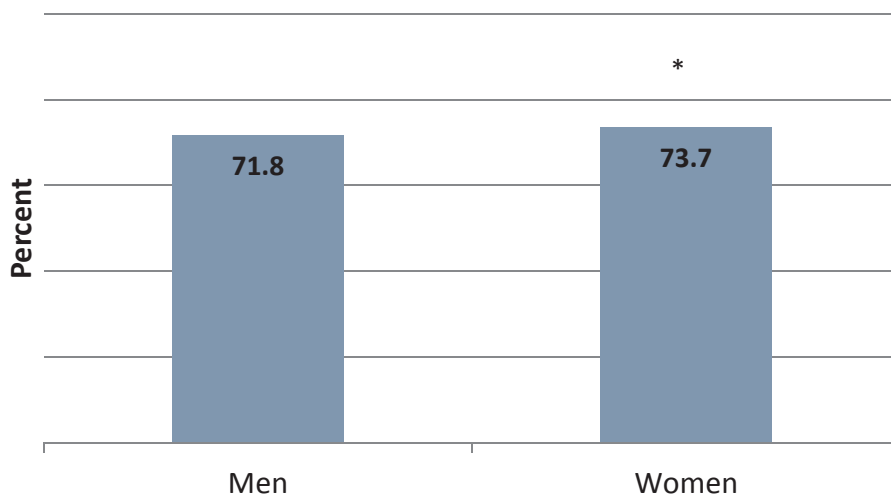
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For differences that are statistically significant, the following symbols are also used when applicable:

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## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between women and men was less than 3 percentage points.

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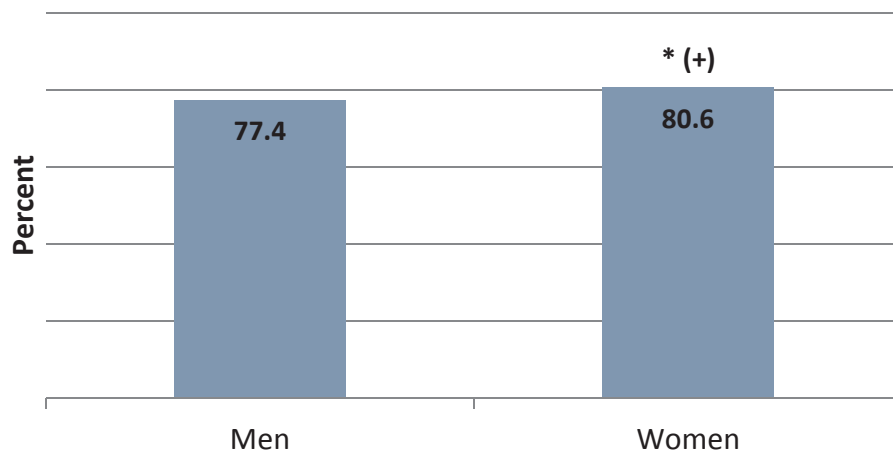
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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## Clinical Care: Pharmacotherapy Management of COPD Exacerbation—Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by gender, 2016



**Note:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who experienced a COPD exacerbation were more likely than men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between women and men was greater than 3 percentage points.

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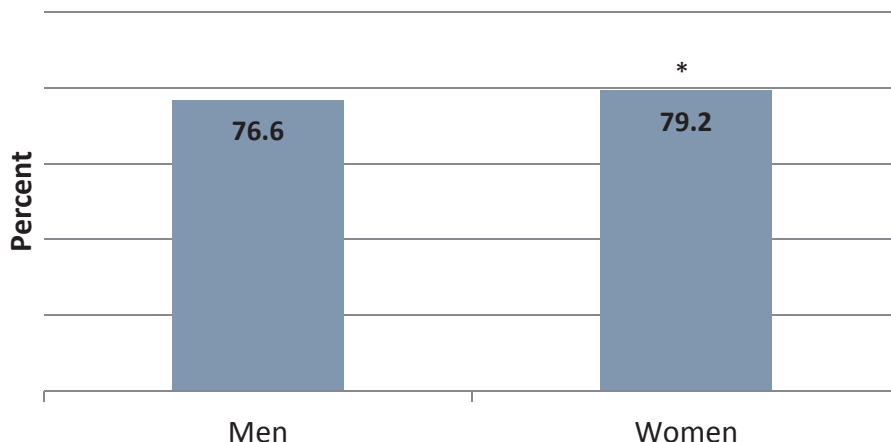
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

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## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least one ambulatory prescription for a DMARD, by gender, 2016



**Note:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were diagnosed with rheumatic arthritis were more likely than men who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

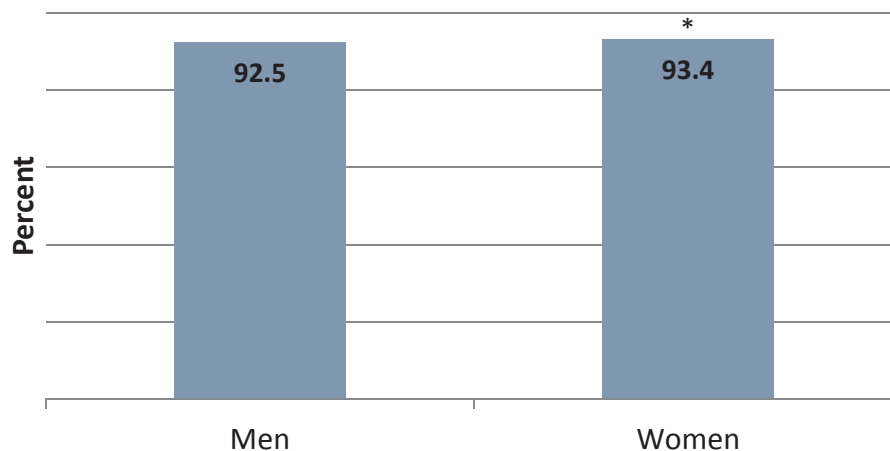
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men



## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least one therapeutic monitoring event for the therapeutic agent during the year, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women were more likely than men to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

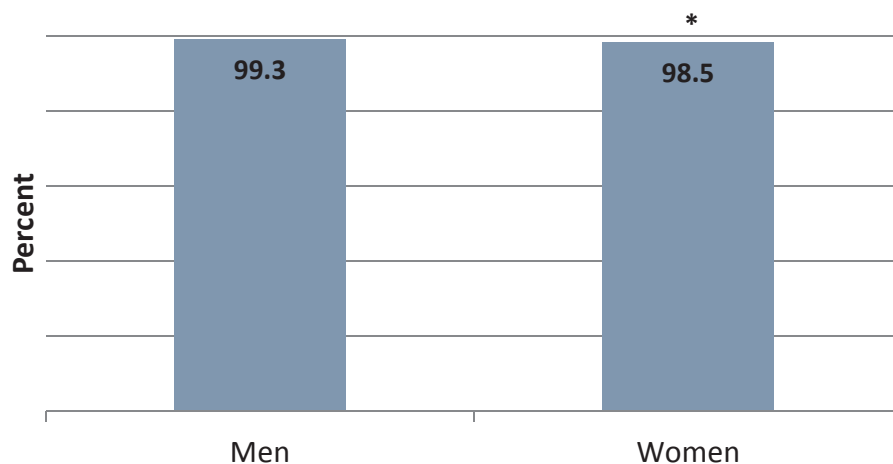
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for six months or longer: ACE inhibitors, ARBs, digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2016 data, it was observed that this standard of care was met less often for women than for men. The difference between women and men was less than 3 percentage points.

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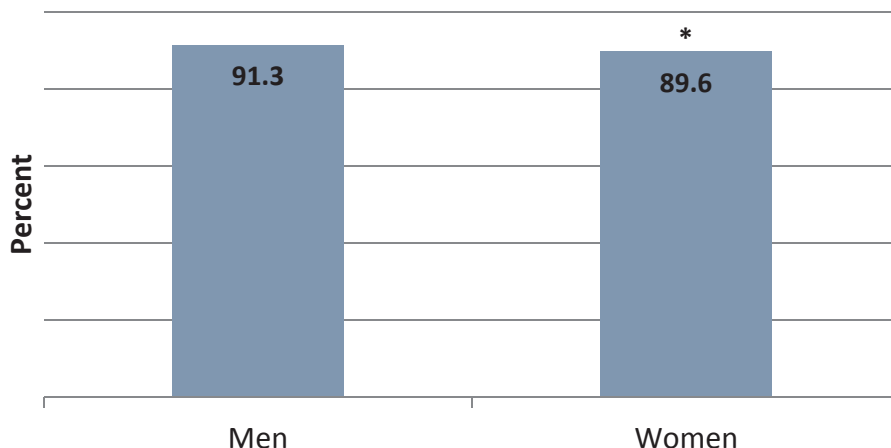
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with chronic renal failure. In the 2016 data, it was observed that this standard of care was met less often for elderly women with chronic renal failure than for elderly men with chronic renal failure. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

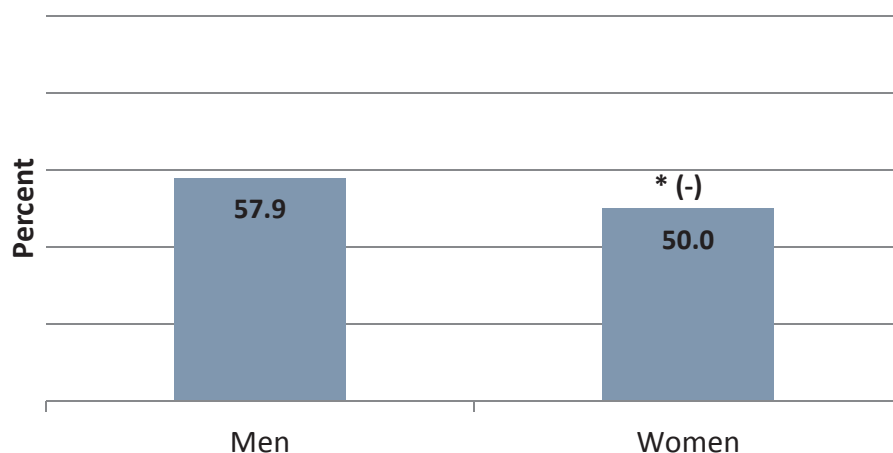
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes COX-2 selective NSAIDs or nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with dementia. In the 2016 data, it was observed that this standard of care was met less often for elderly women with dementia than for elderly men with dementia. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

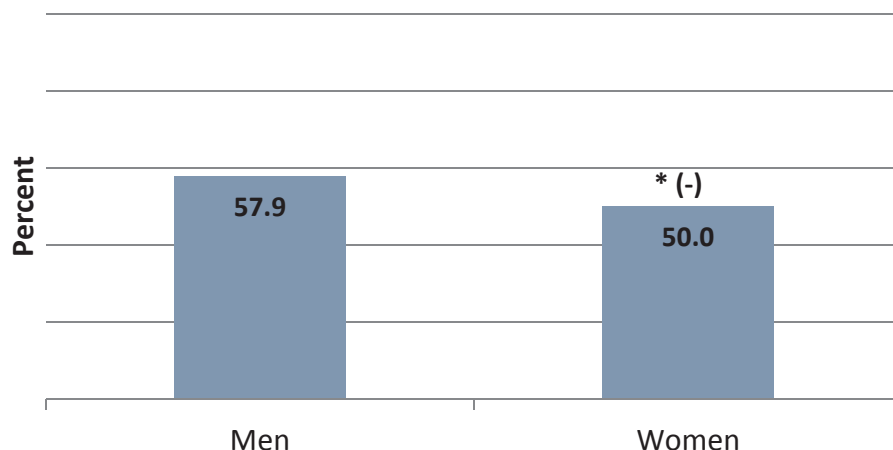
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2016 data, it was observed that this standard of care was met less often for elderly women with a history of falls than for elderly men with a history of falls. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

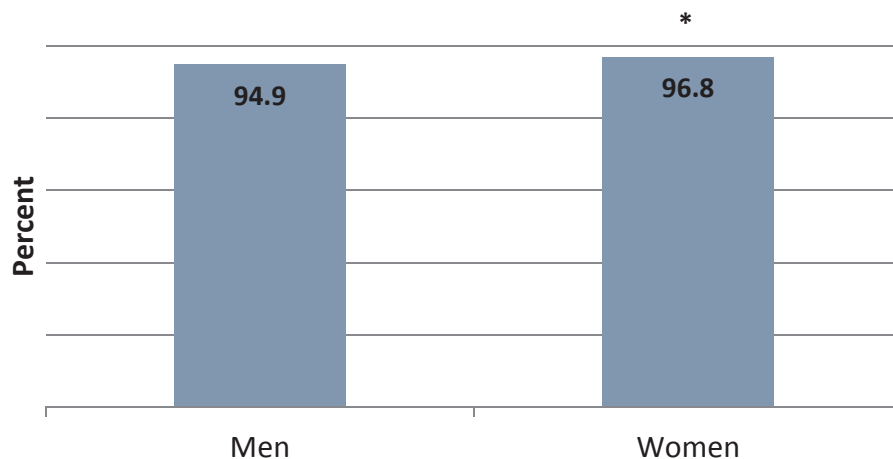
For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, SSRIs, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women were more likely than men to have had an ambulatory or preventive care visit. The difference between women and men was less than 3 percentage points.

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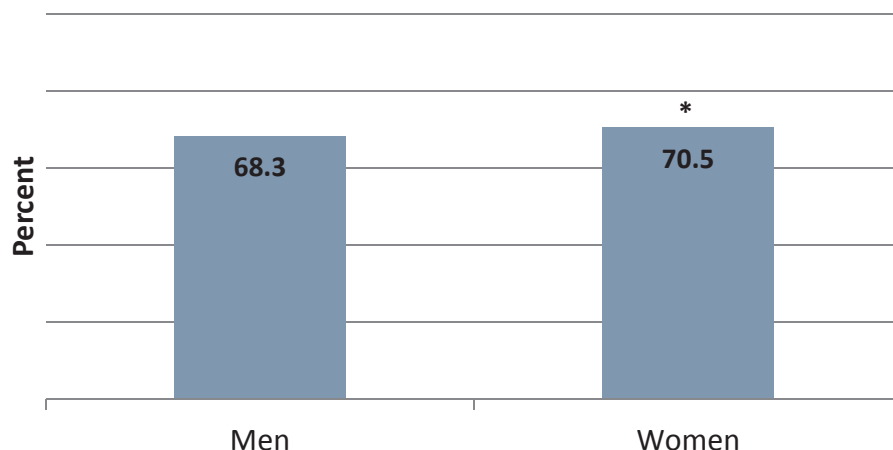
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

## Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between women and men was less than 3 percentage points.

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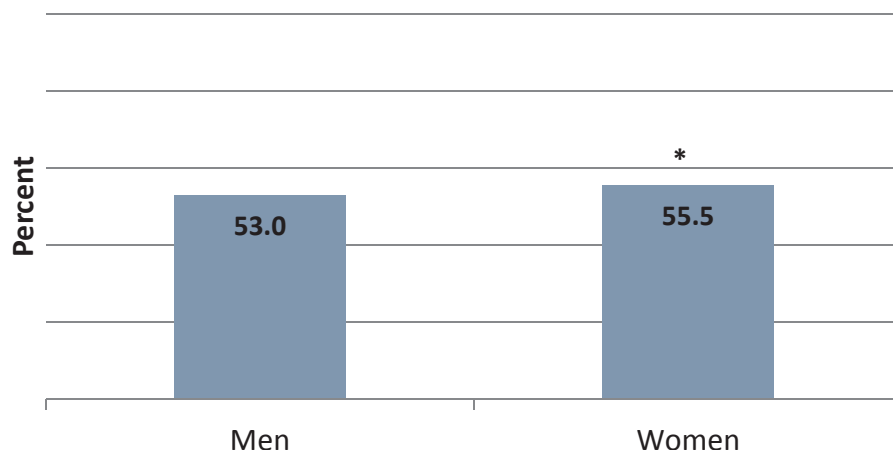
\* Significantly different from the score for Whites ( $p < .05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors women
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## Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment

Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were diagnosed with a new episode of major depression were more likely than men who were diagnosed with a new episode of major depression to have been treated with and to have remained on antidepressant medication for at least 180 days. The difference between women and men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

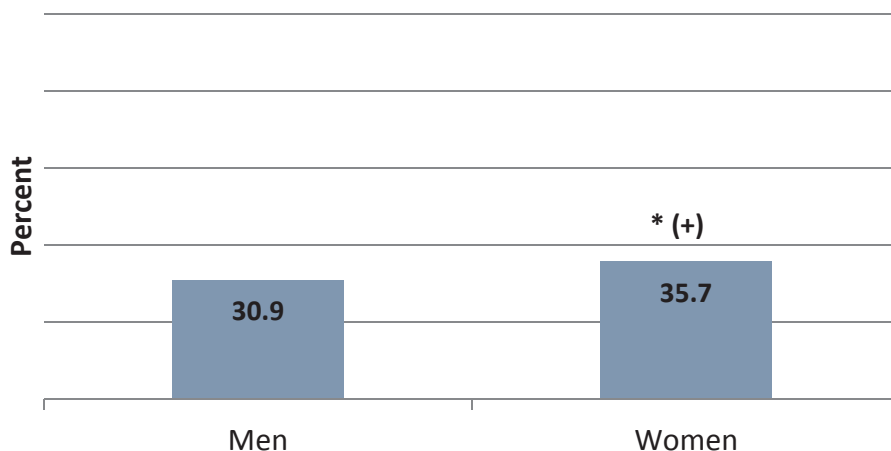
For differences that are statistically significant, the following symbols are also used when applicable:

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## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge,  
by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of being discharged. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

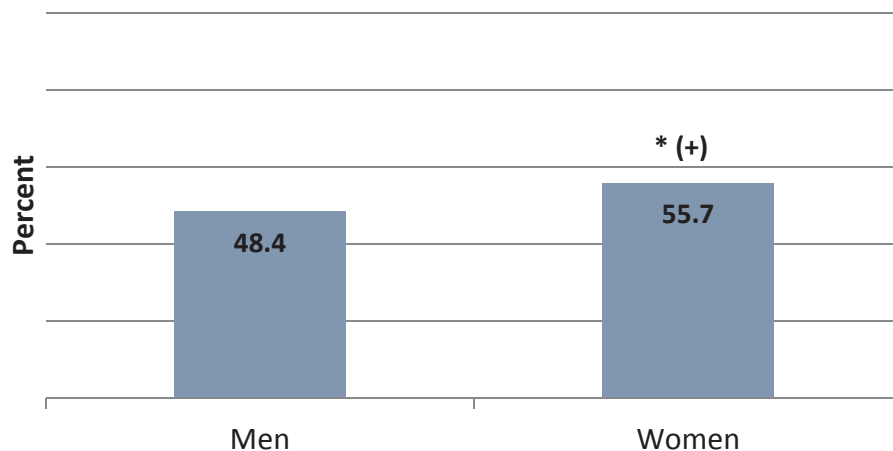
For differences that are statistically significant, the following symbols are also used when applicable:

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<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women who were hospitalized for a mental health disorder were more likely than men who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

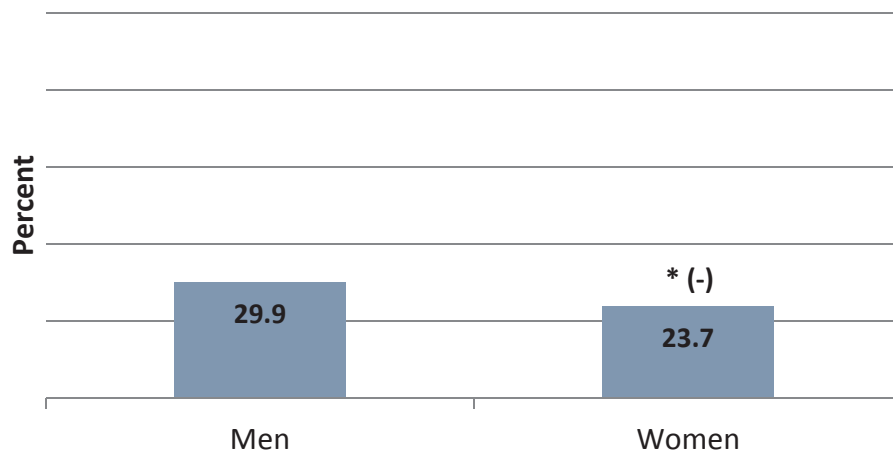
For differences that are statistically significant, the following symbols are also used when applicable:

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<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiate<sup>‡</sup> treatment within 14 days of the diagnosis, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with a new episode of AOD dependence were less likely than men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between women and men was greater than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < 0.05$ ).

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors women

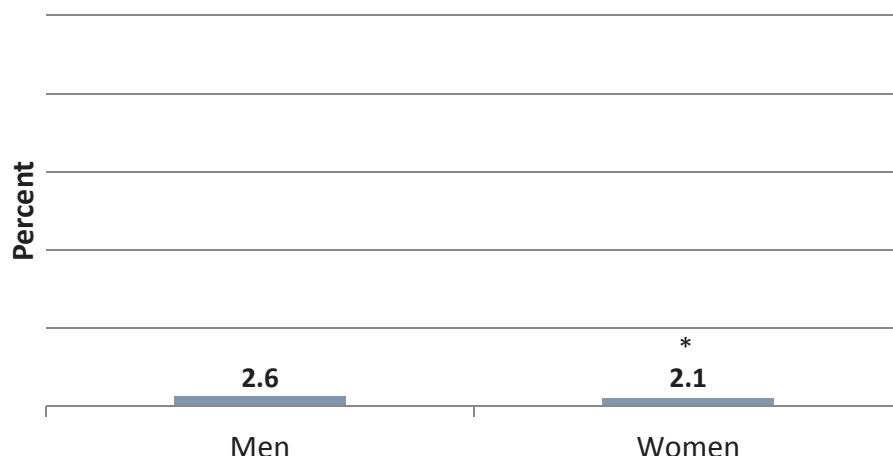
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors men

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment and who had two or more additional services after a diagnosis of AOD within 30 days of the initiation visit, by gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide.

### Disparities

- Women with a new episode of AOD dependence and who initiated treatment were less likely than men with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The difference between women and men was less than 3 percentage points.


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\* Significantly different from the score for Whites ( $p < .05$ ).


For differences that are statistically significant, the following symbols are also used when applicable:

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<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

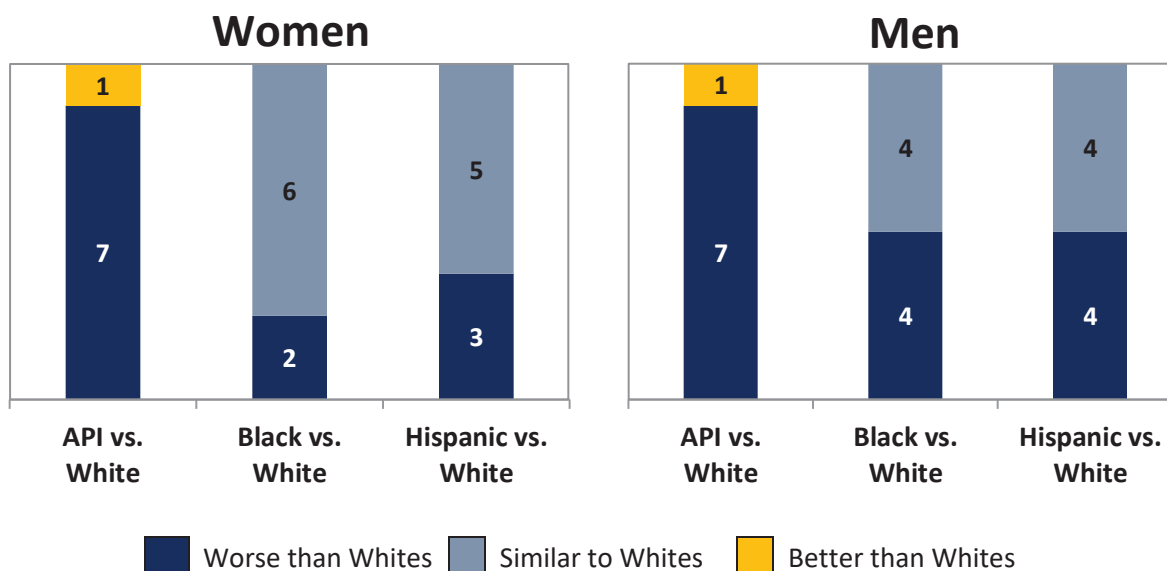


## **Section III: Racial and Ethnic Disparities by Gender in Health Care in Medicare Advantage**



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 8) for which women and men of selected racial/ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women and men in 2016



**Data source and chart notes:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2016 Medicare CAHPS survey. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

### API women received worse care than White women

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs
- Getting information about prescription drugs

### API women received better care than White women

- Annual flu vaccine

### Black women received worse care than White women

- Getting appointments and care quickly
- Annual flu vaccine

### Hispanic women received worse care than White women

- Getting appointments and care quickly
- Getting information about prescription drugs
- Annual flu vaccine

**API men received worse care than White men**

- Getting needed care
- Getting appointments and care quickly
- Customer service
- Doctors who communicate well
- Care coordination
- Getting needed prescription drugs
- Getting information about prescription drugs

**API men received better care than White men**

- Annual flu vaccine

**Black men received worse care than White men**

- Getting appointments and care quickly
- Getting needed prescription drugs
- Getting information about prescription drugs
- Annual flu vaccine

**Hispanic men received worse care than White men**

- Getting appointments and care quickly
- Care coordination
- Getting information about prescription drugs
- Annual flu vaccine

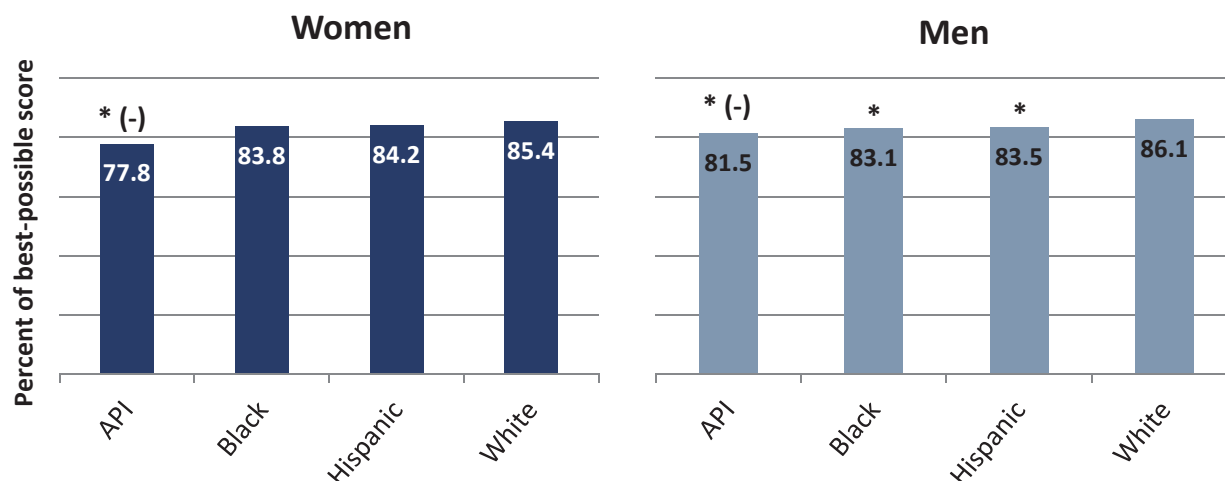
Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < .05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial/ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude. Paddison et al., 2013.

## Patient Experience: Getting Needed Care

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women reported worse<sup>††</sup> experiences getting needed care than White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with getting needed care that were similar to the experiences reported by White women.
- API, Black, and Hispanic men reported worse experiences getting needed care than White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. The difference between Black and White men and between Hispanic and White men was less than 3 points (prior to rounding) on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

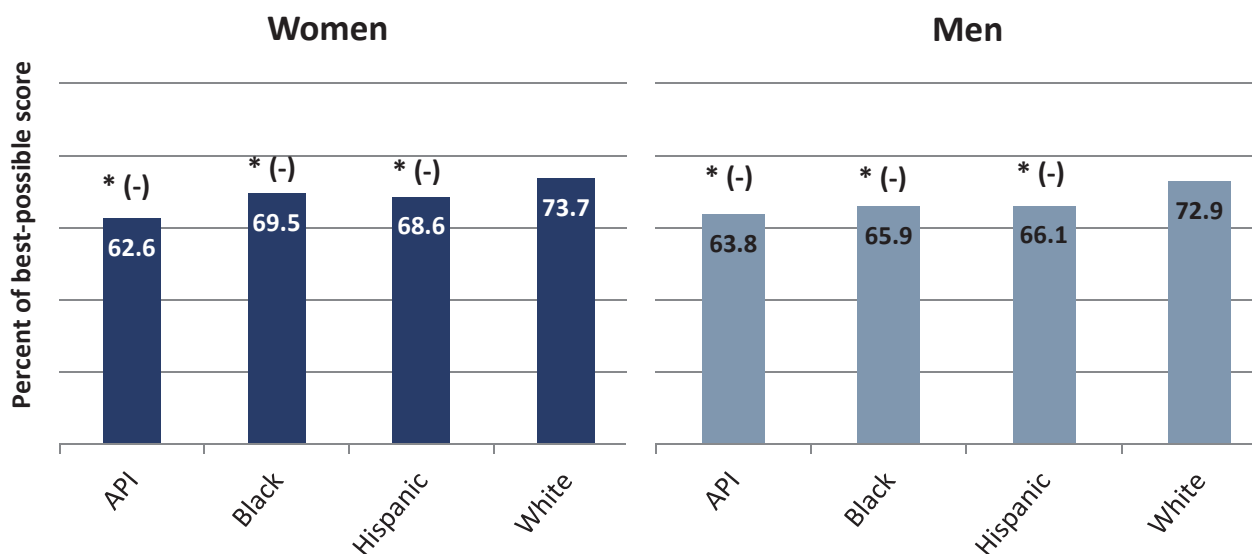
<sup>†</sup> This includes how easy it is to get appointments with specialists and how easy it is to get needed care, tests, or treatment.

<sup>††</sup> Unlike on the preceding page, we use the terms “better” or “worse” to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.



## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women reported getting appointments and care less quickly than White women did. In each case, the difference was greater than 3 points on a 0–100 scale.
- API, Black, and Hispanic men reported getting appointments and care less quickly than White men did. In each case, the difference was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

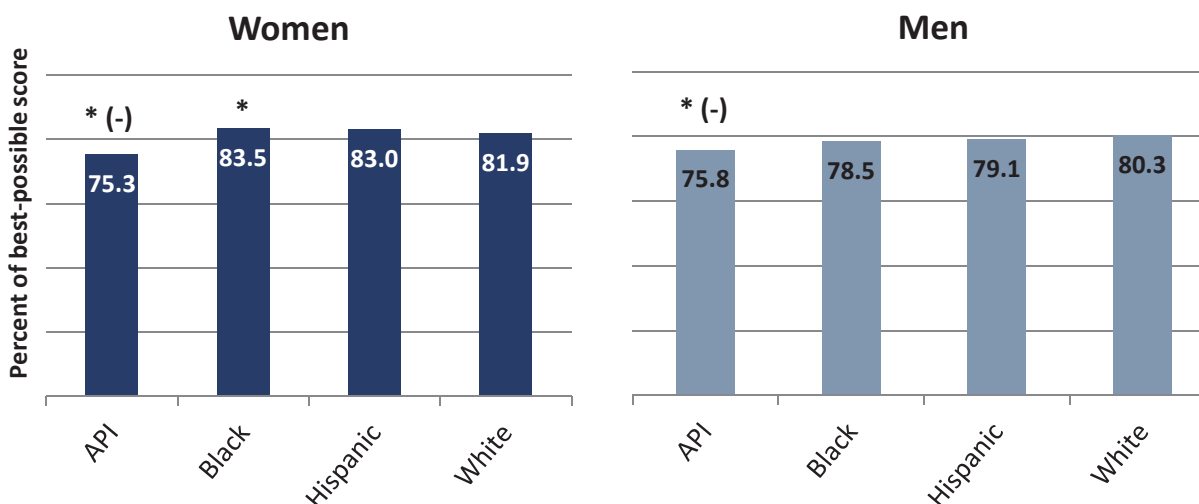
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how easy it is to get care that is needed right away, as well as how easy it is to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women reported worse experiences with customer service than White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale. Black women reported better experiences with customer service than White women reported, but the difference was less than 3 points on a 0–100 scale. Hispanic women reported experiences with customer service that were similar to the experiences reported by White women.
- API men reported worse experiences with customer service than White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with customer service that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < .05$ ).

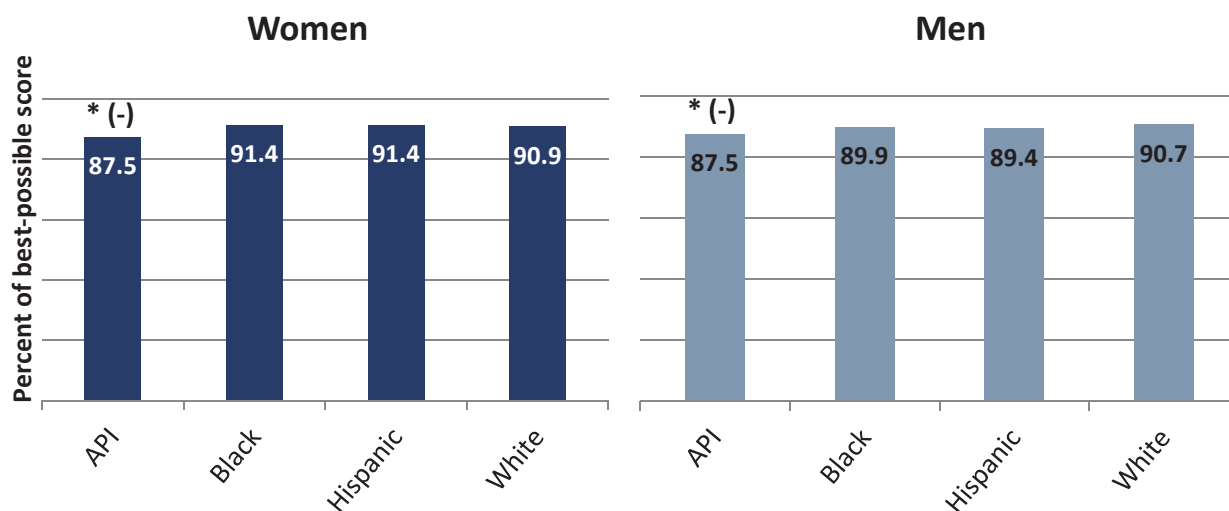
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often health plan customer service staff provide the information or help that beneficiaries need, how often beneficiaries are treated with courtesy and respect, and how often forms from the health plan are easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women reported worse doctor communication than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with doctor communication that were similar to the experiences reported by White women.
- API men reported worse doctor communication than White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with doctor communication that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < .05$ ).

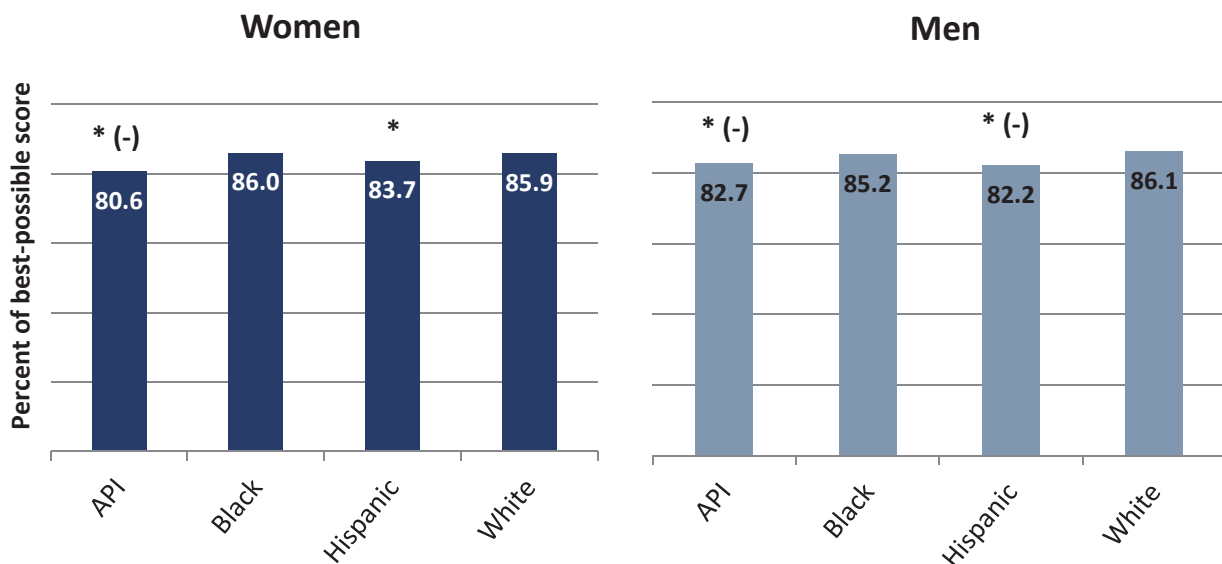
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often doctors explain things in a way that is easy to understand, listen carefully, show respect for what patients have to say, and spend time with patients.

## Patient Experience: Care Coordination

Percentage of the best possible score (on a 0–100 scale) earned on how well patient care was coordinated,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women reported worse experiences with care coordination than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale; the difference between Hispanic and White women was less than 3 points. Black women reported experiences with care coordination that were similar to the experiences reported by White women.
- API and Hispanic men reported worse care coordination than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale. Black men reported experiences with care coordination that were similar to the experiences reported by White men.

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\* Significantly different from the score for Whites ( $p < .05$ ).

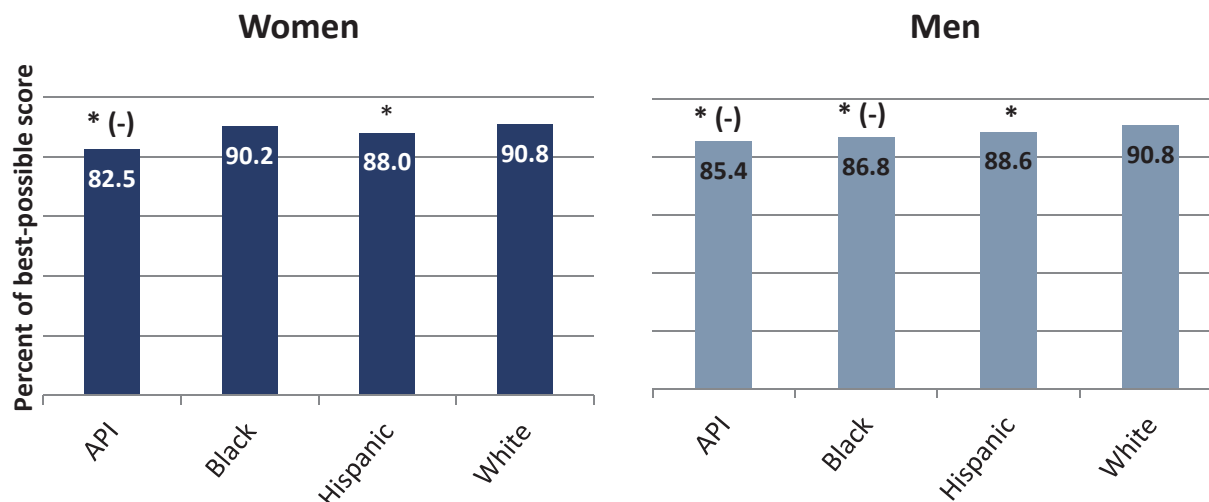
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes whether doctors had the records and information they need about patients' care and how quickly patients received their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women reported worse experiences getting needed prescription drugs than White women reported. The difference between API and White women was greater than 3 points on a 0–100 scale; the difference between Hispanic and White women was less than 3 points. Black women reported experiences getting needed prescription drugs that were similar to the experiences reported by White women.
- API, Black, and Hispanic men reported worse experiences getting needed prescription drugs than White men reported. The difference between API and White men was greater than 3 points on a 0–100 scale, as was the difference between Black and White men. The difference between Hispanic and White men was less than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

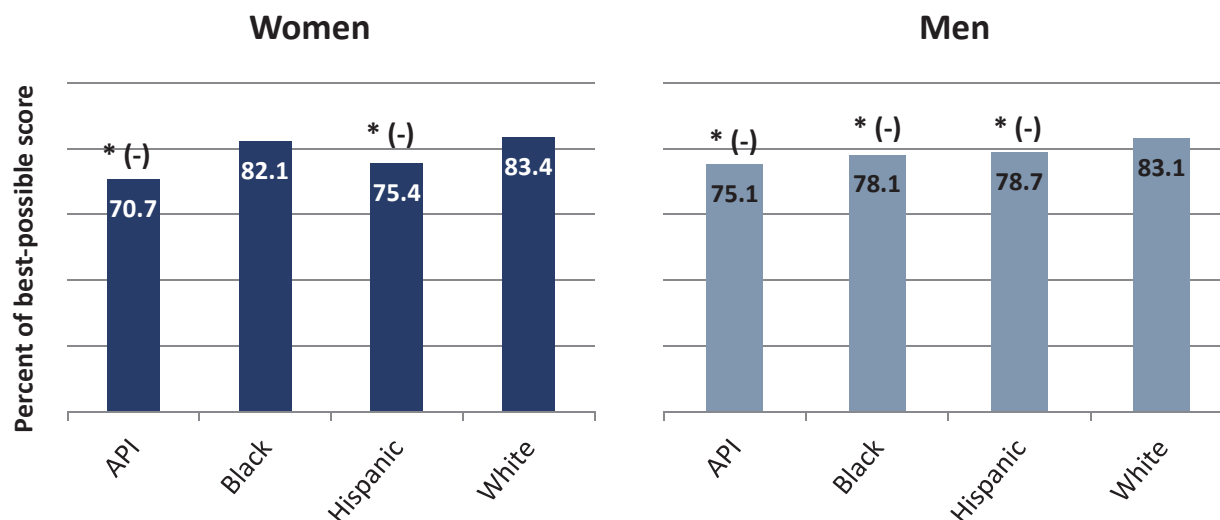
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes how often it is easy to use the plan to get prescribed medications and how easy it is to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Getting Information About Prescription Drugs

Percentage of the best possible score (on a 0–100 scale) earned on how easy it was for beneficiaries to get information from their plan about prescription drug coverage and cost,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women reported worse experiences getting information about prescription drugs than White women reported. In each case, the difference was greater than 3 points on a 0–100 scale. Black women reported experiences with getting information about prescription drugs that were similar to the experiences reported by White women.
- API, Black, and Hispanic men reported worse experiences getting information about prescription drugs than White men reported. In each case, the difference was greater than 3 points on a 0–100 scale.

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\* Significantly different from the score for Whites ( $p < .05$ ).

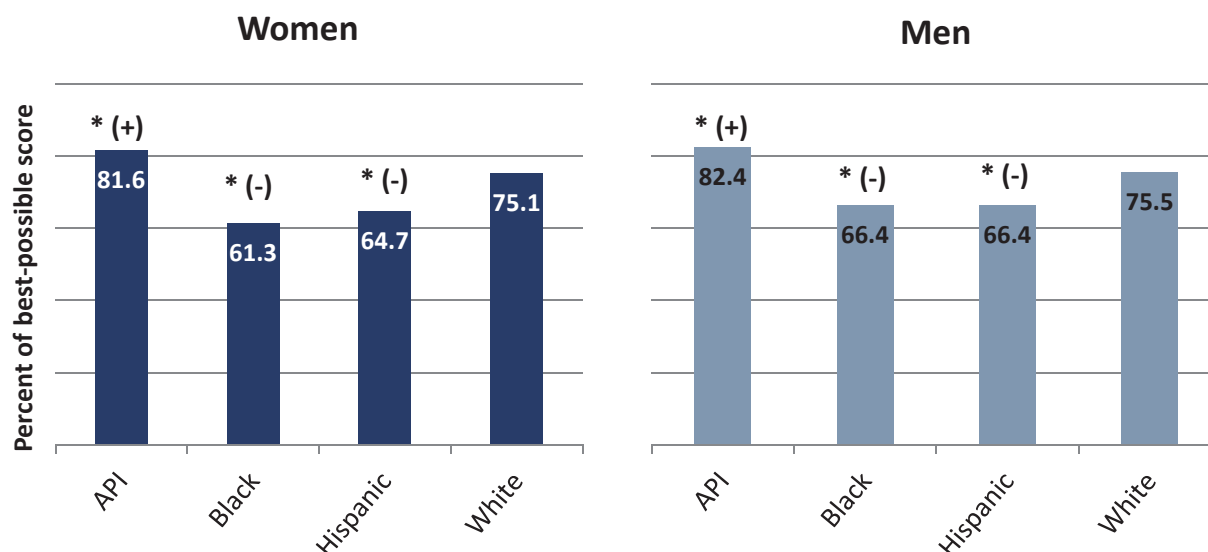
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes information about which prescription medications are covered by the plan and how much beneficiaries have to pay for their prescription medications.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race/ethnicity within gender, 2016



**NOTE:** Data from the Medicare CAHPS survey, 2016. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women were less likely than White women to have received the flu vaccine. In each case, the difference was greater than 3 percentage points. API women were more likely than White women to have received the flu vaccine. The difference between API women and White women was greater than 3 percentage points.
- Black and Hispanic men were less likely than White men to have received the flu vaccine. In each case, the difference was greater than 3 percentage points. API men were more likely than White men to have received the flu vaccine. The difference between API men and White men was greater than 3 percentage points.

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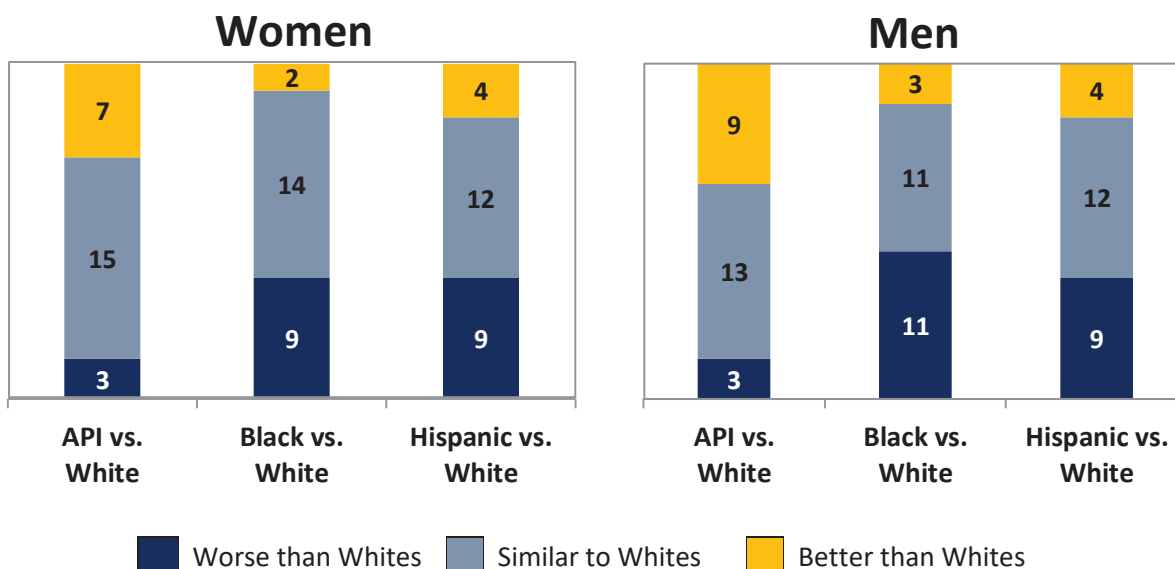
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 25) for which women/men of selected racial/ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2016



**Data source and chart notes:** This chart summarizes clinical quality (HEDIS) data collected in 2016 from Medicare health plans nationwide. API = Asian or Pacific Islander. Racial groups such as Blacks and Whites are non-Hispanic. Hispanic ethnicity includes all races.

### API women received worse care than White women

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

### API women received better care than White women

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Follow-up after hospital stay for mental illness (within seven days of discharge)

### Black women received worse care than White women

- Diabetes care—blood sugar controlled
- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)



**Black women received better care than White women**

- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls

**Hispanic women received worse care than White women**

- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**Hispanic women received better care than White women**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**API men received worse care than White men**

- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**API men received better care than White men**

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Diabetes care—blood sugar controlled
- Use of spirometry testing in the assessment and diagnosis of COPD
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Follow-up after hospital stay for mental illness (within seven days of discharge)

**Black men received worse care than White men**

- Colorectal cancer screening
- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Rheumatoid arthritis management
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

**Black men received better care than White men**

- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Avoiding potentially harmful drug-disease interactions in elderly patients with a history of falls
- Initiation of alcohol or other drug treatments

**Hispanic men received worse care than White men**

- Controlling blood pressure
- Continuous beta-blocker treatment after a heart attack
- Pharmacotherapy management of COPD exacerbation—use of systemic corticosteroids
- Pharmacotherapy management of COPD exacerbation—use of bronchodilators
- Avoiding potentially harmful drug-disease interactions in elderly patients with chronic renal failure
- Avoiding potentially harmful drug-disease interactions in elderly patients with dementia
- Antidepressant medication management—acute phase treatment
- Antidepressant medication management—continuation phase treatment
- Initiation of alcohol or other drug treatments

**Hispanic men received better care than White men**

- Diabetes care—eye exam
- Diabetes care—blood pressure controlled
- Follow-up after hospital stay for mental illness (within seven days of discharge)
- Follow-up after hospital stay for mental illness (within 30 days of discharge)

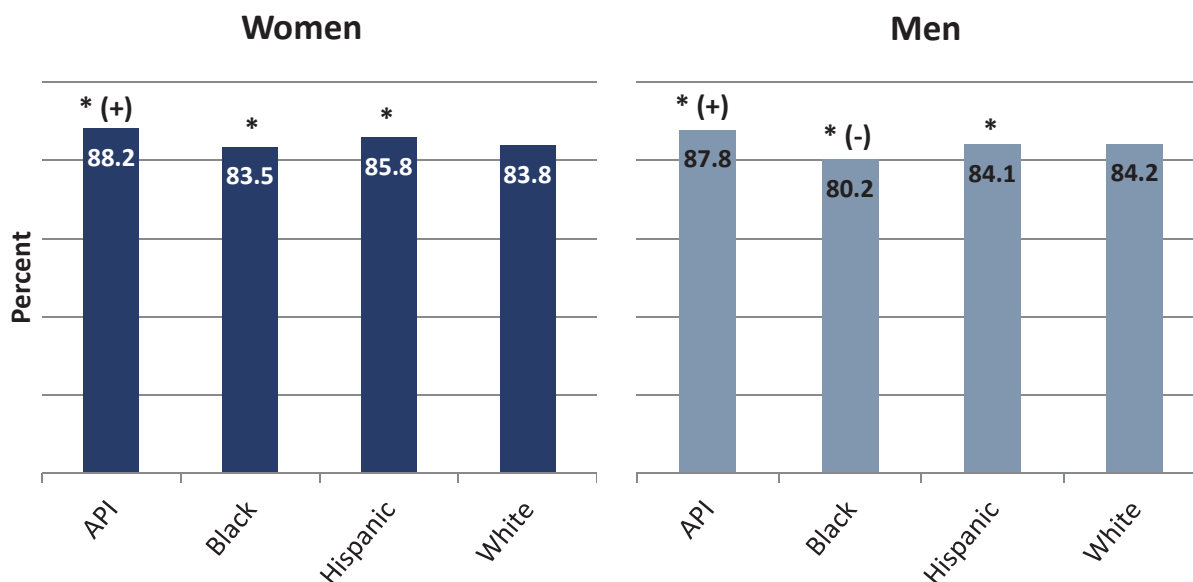
Within each gender, the relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population received better care than Whites. Differences are statistically significant ( $p < .05$ ), are equal to or larger than 3 points<sup>†</sup> on a 0–100 scale, and favor the racial/ethnic minority group.
- **Similar** = Population and Whites received care of similar quality. Differences are less than 3 points on a 0–100 scale and/or not statistically significant.
- **Worse** = Population received worse care than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

<sup>†</sup> A difference that is considered to be of moderate magnitude. Paddison et al., 2013.

## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50–75 years who had appropriate screening for colorectal cancer, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women were more likely than White women to have been appropriately screened for colorectal cancer. The difference between API and White women was greater than 3 percentage points. The difference between Hispanic and White women was less than 3 percentage points. Black women were less likely than White women to have been appropriately screened for colorectal cancer. The difference between Black women and White women was less than 3 percentage points.
- API men were more likely than White men to have been appropriately screened for colorectal cancer. The difference between API and White men was greater than 3 percentage points. Black men and Hispanic men were less likely than White men to have been appropriately screened for colorectal cancer. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

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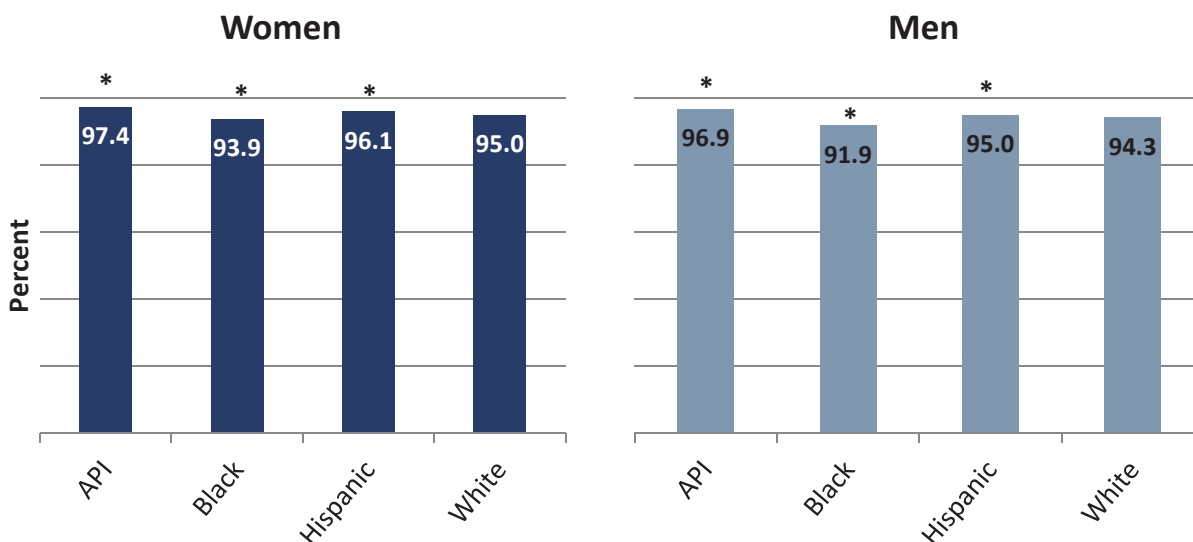
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had one or more HbA1c tests in the past year, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had their blood sugar tested at least once in the past year. In each case, the difference was less than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had their blood sugar tested at least once in the past year. In each case, the difference was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black men and White men was less than 3 percentage points.

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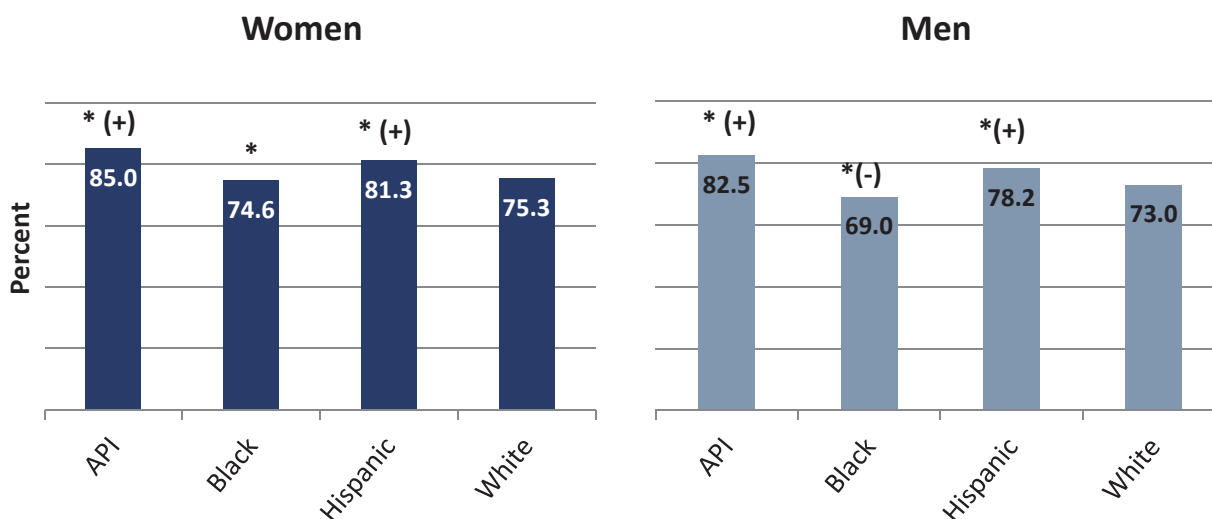
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have had an eye exam in the past year. In each case, the difference was greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have had an eye exam in the past year. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have had an eye exam in the past year. In each case, the difference was greater than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had an eye exam in the past year. The difference between Black men and White men was greater than 3 percentage points.

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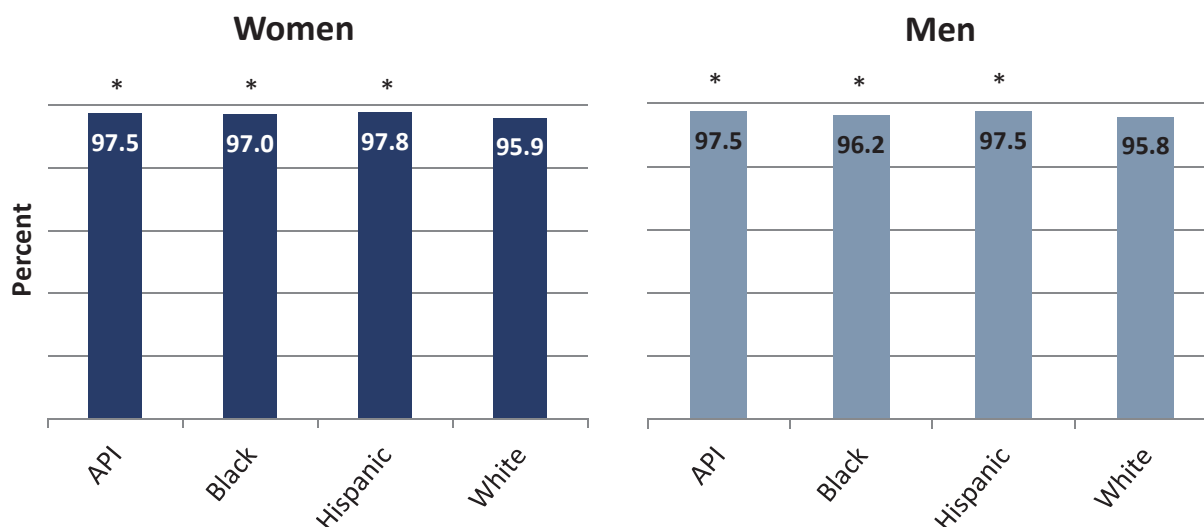
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men with diabetes were more likely than White men with diabetes to have had medical attention for nephropathy in the past year. In each case, the difference was less than 3 percentage points.

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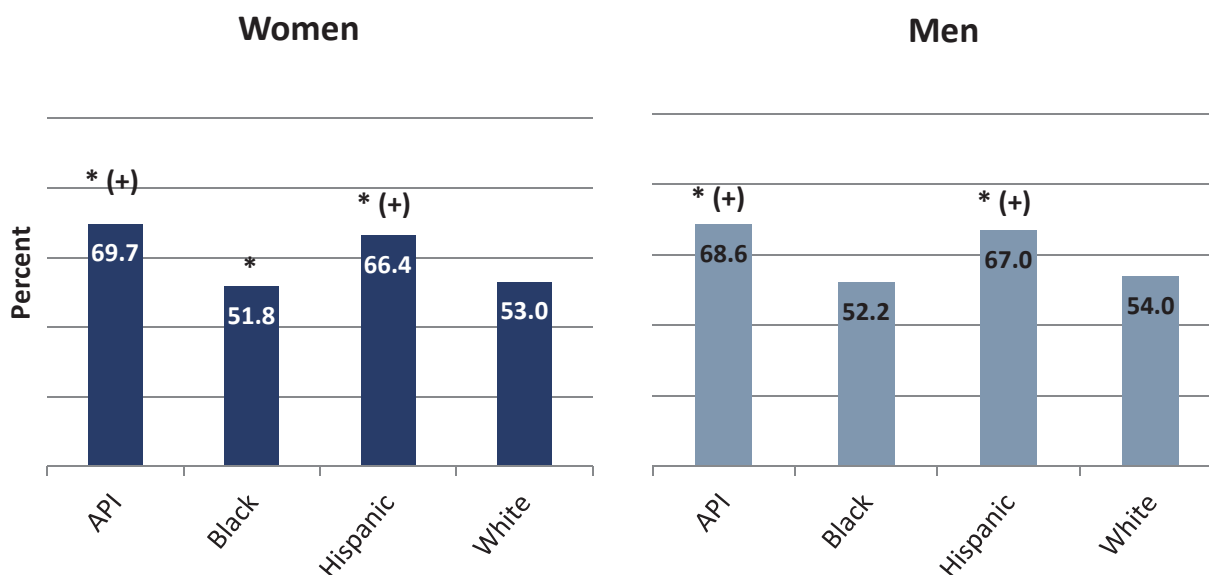
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood pressure under control. In each case, the difference was greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have their blood pressure under control. The difference between Black women and White women was less than 3 percentage points.
- API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood pressure under control. In each case the difference was greater than 3 percentage points. Black men with diabetes were as likely as White men with diabetes to have their blood pressure under control.

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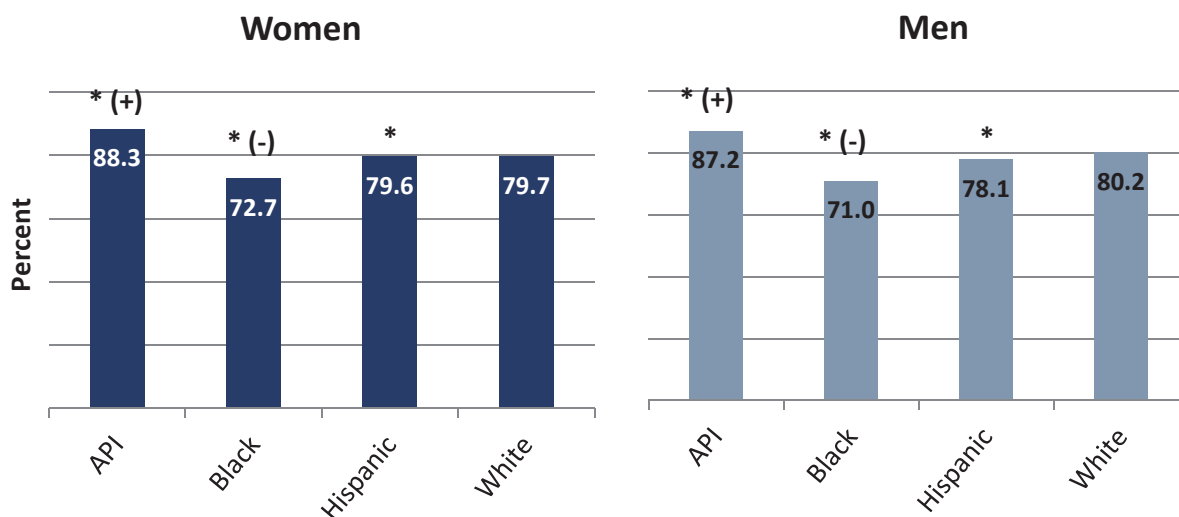
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 years with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women with diabetes were more likely than White women with diabetes to have their blood sugar levels under control. The difference between API women and White women was greater than 3 percentage points. Black and Hispanic women with diabetes were less likely than White women with diabetes to have their blood sugar levels under control. The difference between Black women and White women was greater than 3 percentage points. The difference between Hispanic women and White women was less than 3 percentage points.
- API men with diabetes were more likely than White men with diabetes to have their blood sugar levels under control. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men with diabetes were less likely than White men with diabetes to have their blood sugar levels under control. The difference between Black men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

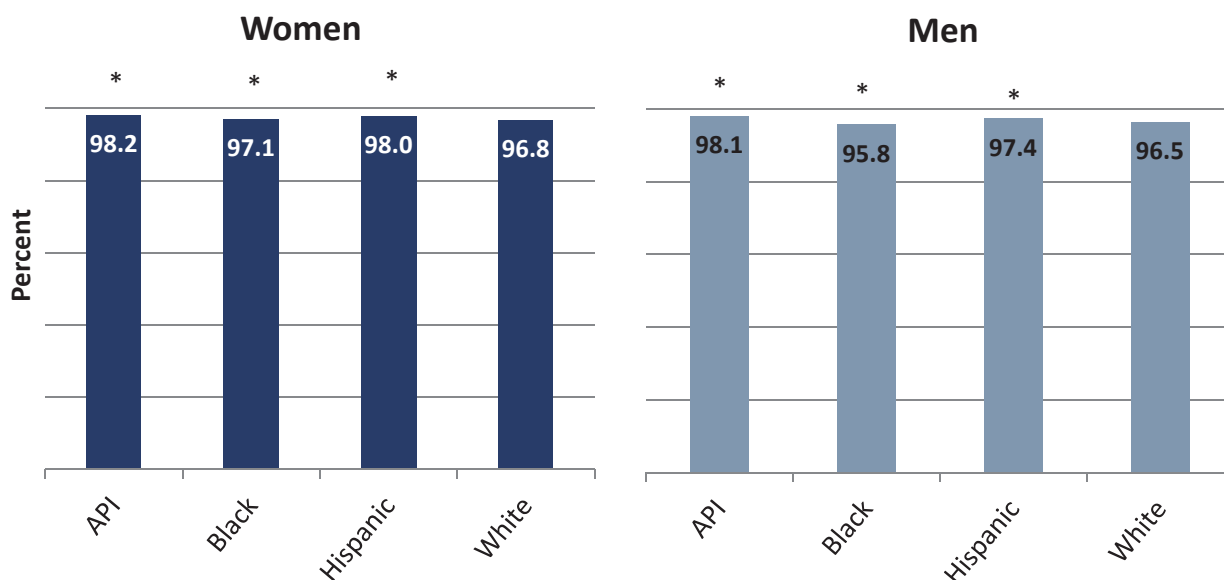
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites



## Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees aged 18–74 years who had an outpatient visit and whose BMI was documented in the past two years, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women were more likely than White women to have had their BMIs documented. In each case, the difference was less than 3 percentage points.
- Whereas API and Hispanic men were more likely than White men to have had their BMIs documented, Black men were less likely than White men to have had their BMIs documented. In each case, the difference was less than 3 percentage points.

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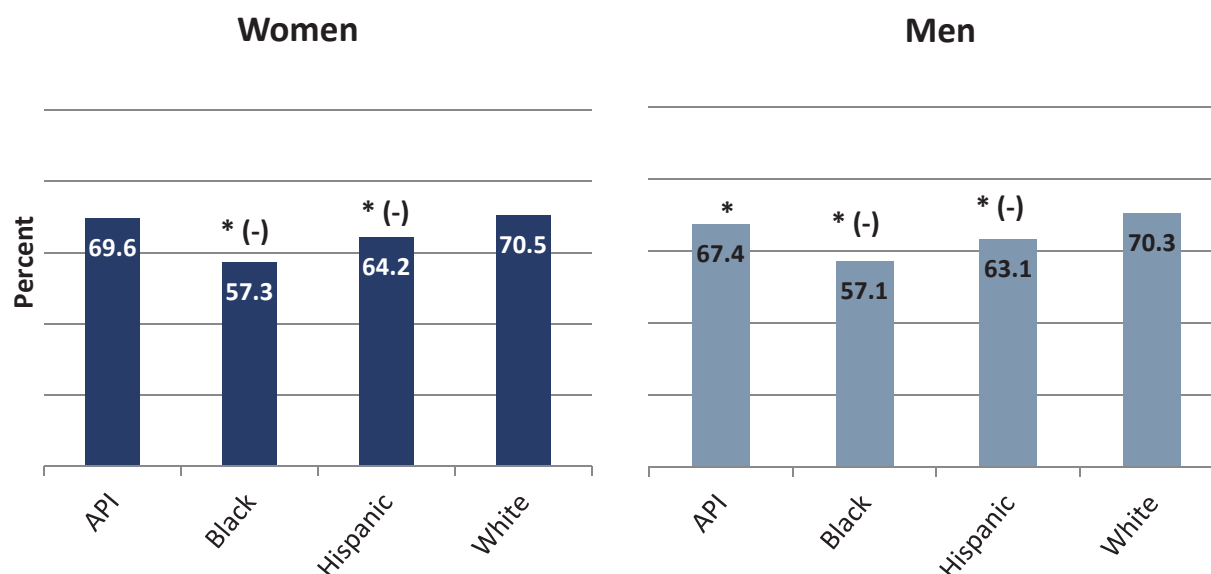
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees aged 18–85 years who had a diagnosis of hypertension and whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women with a diagnosis of hypertension were less likely than White women with a diagnosis of hypertension to have had their blood pressure adequately controlled. In each case, the difference was greater than 3 percentage points. API women with a diagnosis of hypertension were as likely as White women with a diagnosis of hypertension to have had their blood pressure adequately controlled.
- Black, Hispanic, and API men with a diagnosis of hypertension were less likely than White men with a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Black and Hispanic men and White men was greater than 3 percentage points. The difference between API and White men was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

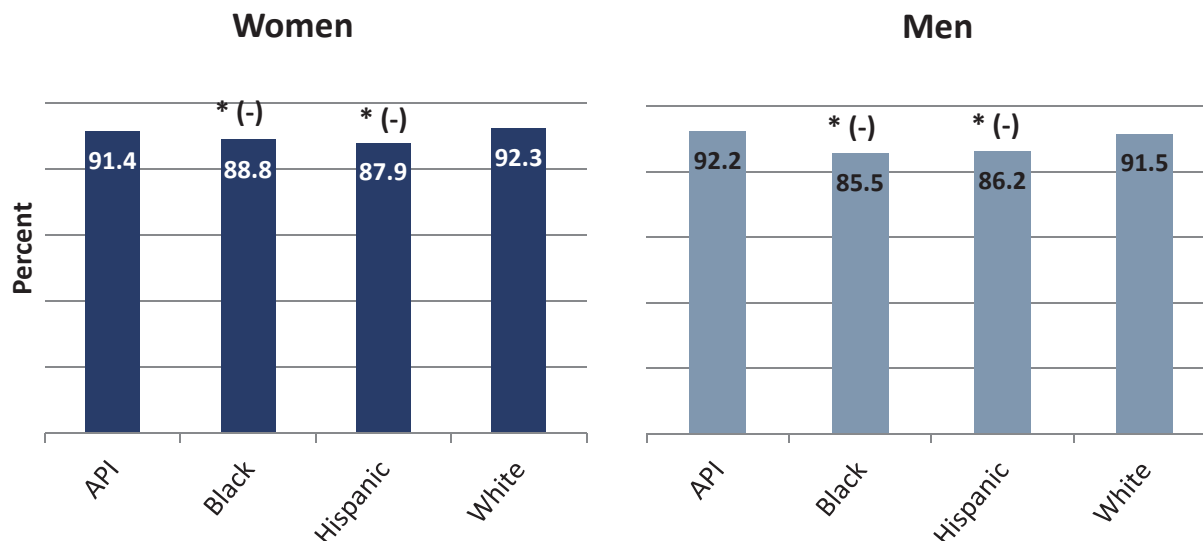
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Less than 140/90 for enrollees 18–59 years of age and for enrollees 60–85 years of age with a diagnosis of diabetes, or less than 150/90 for members 60–85 years of age without a diagnosis of diabetes.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees aged 18 years and older who were hospitalized and discharged alive with a diagnosis of AMI and who received persistent beta-blocker treatment for six months after discharge, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women who were hospitalized for a heart attack were less likely than White women who were hospitalized for a heart attack to have received persistent beta-blocker treatment. In each case, the difference was greater than 3 percentage points. API women who were hospitalized for a heart attack were as likely as White women who were hospitalized for a heart attack to have received persistent beta-blocker treatment.
- Black and Hispanic men who were hospitalized for a heart attack were less likely than White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. In each case, the difference was greater than 3 percentage points. API men who were hospitalized for a heart attack were as likely as White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment.

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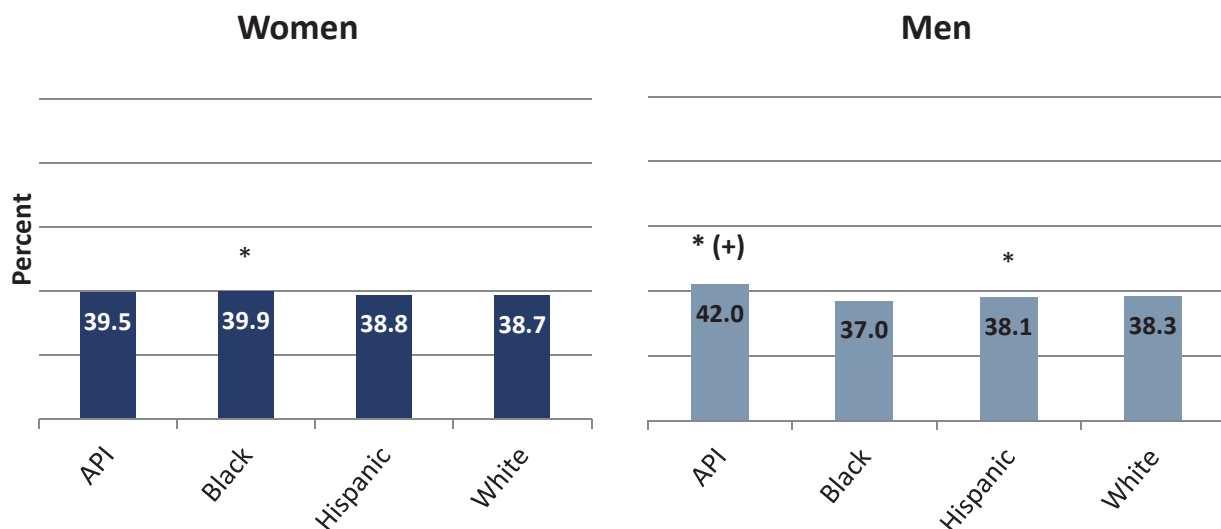
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Testing to Confirm COPD

Percentage of Medicare enrollees aged 40 years and older with a new diagnosis of COPD or newly active COPD who received a spirometry test to confirm the diagnosis, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black women with a new diagnosis of COPD or newly active COPD were more likely than White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Black and White women was less than 3 percentage points. API and Hispanic women with a new diagnosis of COPD or newly active COPD were as likely as White women with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.
- API men with a new diagnosis of COPD or newly active COPD were more likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between API and White men was greater than 3 percentage points. Hispanic men with a new diagnosis of COPD or newly active COPD were less likely than White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. This difference was less than 3 percentage points. Black men with a new diagnosis of COPD or newly active COPD were as likely as White men with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.

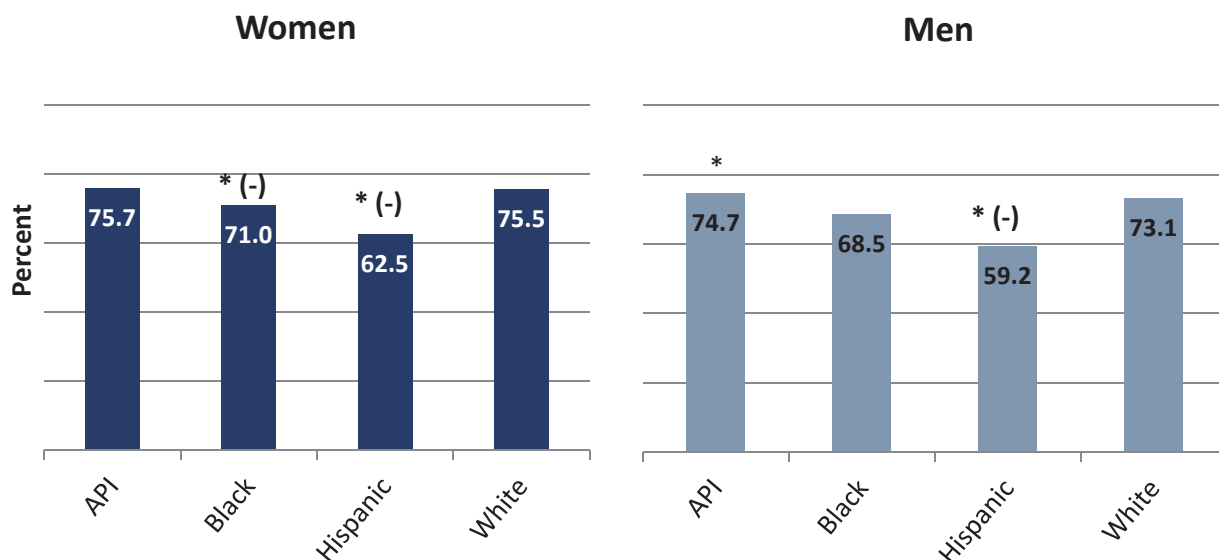
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black and Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. In each case, the difference was greater than 3 percentage points. API women who experienced a COPD exacerbation were as likely as White women who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event.
- API men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. This difference was less than 3 percentage points. Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. This difference was greater than 3 percentage points. Black men who experienced a COPD exacerbation were as likely as White men who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event.

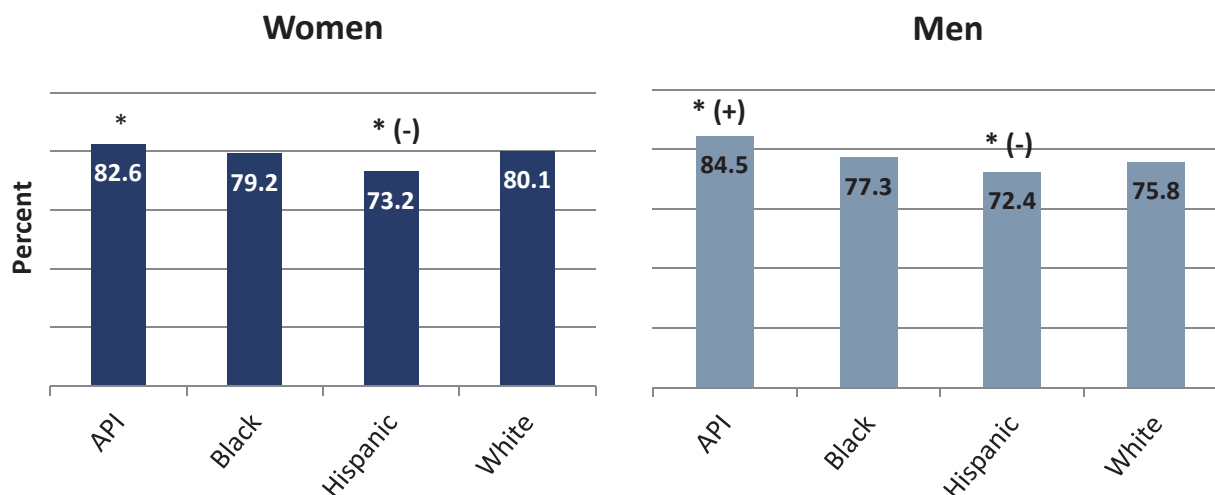
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees aged 40 years and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women who experienced a COPD exacerbation were more likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. This difference was less than 3 percentage points. Hispanic women who experienced a COPD exacerbation were less likely than White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. This difference was greater than 3 percentage points. Black women who experienced a COPD exacerbation were as likely as White women who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event.
- API men who experienced a COPD exacerbation were more likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. In contrast, Hispanic men who experienced a COPD exacerbation were less likely than White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. In each case, the difference was greater than 3 percentage points. Black men who experienced a COPD exacerbation were as likely as White men who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event.

\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

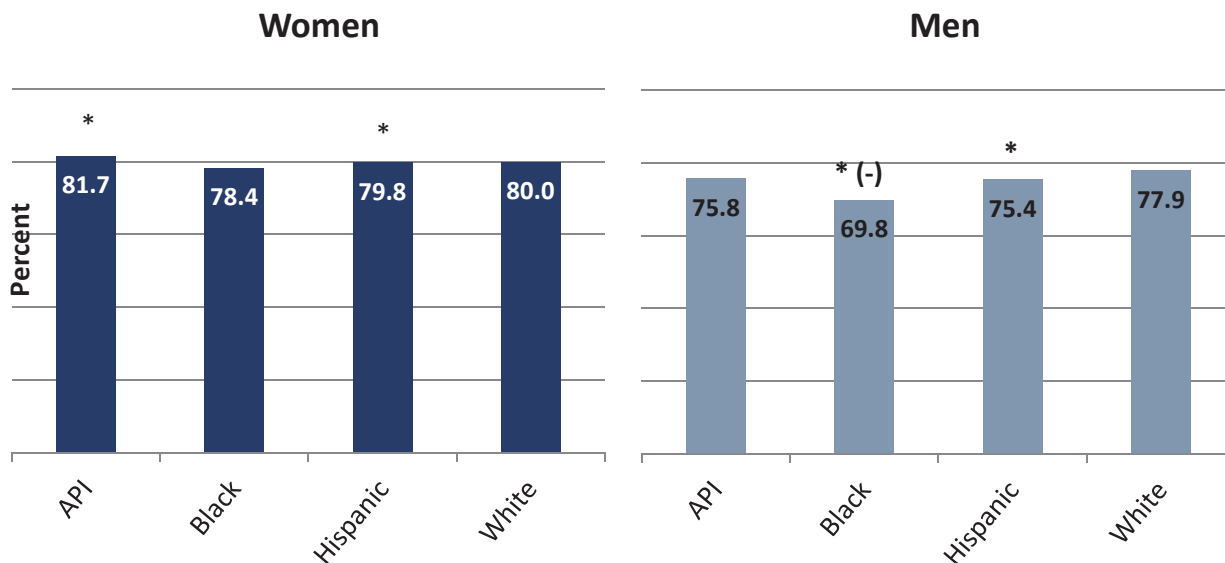
(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites



## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least one ambulatory prescription for a DMARD, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API women diagnosed with rheumatic arthritis were more likely than White women diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. In contrast, Hispanic women diagnosed with rheumatic arthritis were less likely than White women diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. In each case, the difference was less than 3 percentage points. Black women diagnosed with rheumatic arthritis were as likely as White women diagnosed with rheumatic arthritis to have been dispensed at least one DMARD.
- Black and Hispanic men diagnosed with rheumatic arthritis were less likely than White men diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between Black and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points. API men diagnosed with rheumatic arthritis were as likely as White men diagnosed with rheumatic arthritis to have been dispensed at least one DMARD.

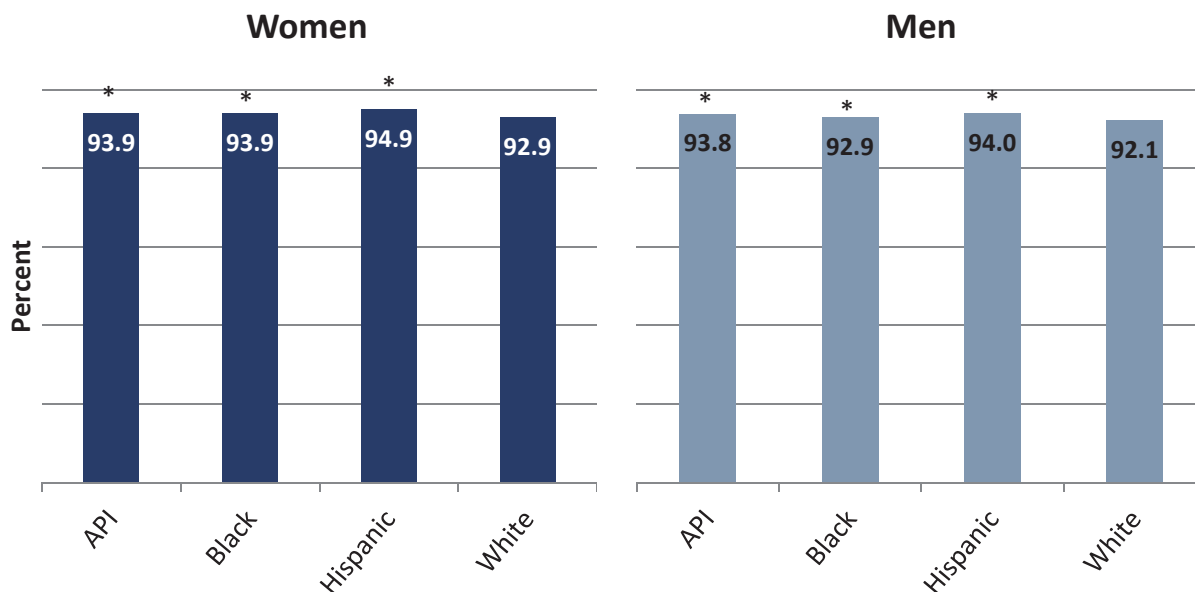
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees aged 18 years and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least one therapeutic monitoring event for the therapeutic agent during the year, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women were more likely than White women to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men were more likely than White men to have had at least one appropriate follow-up visit during the year to monitor their use of a higher-risk medication. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

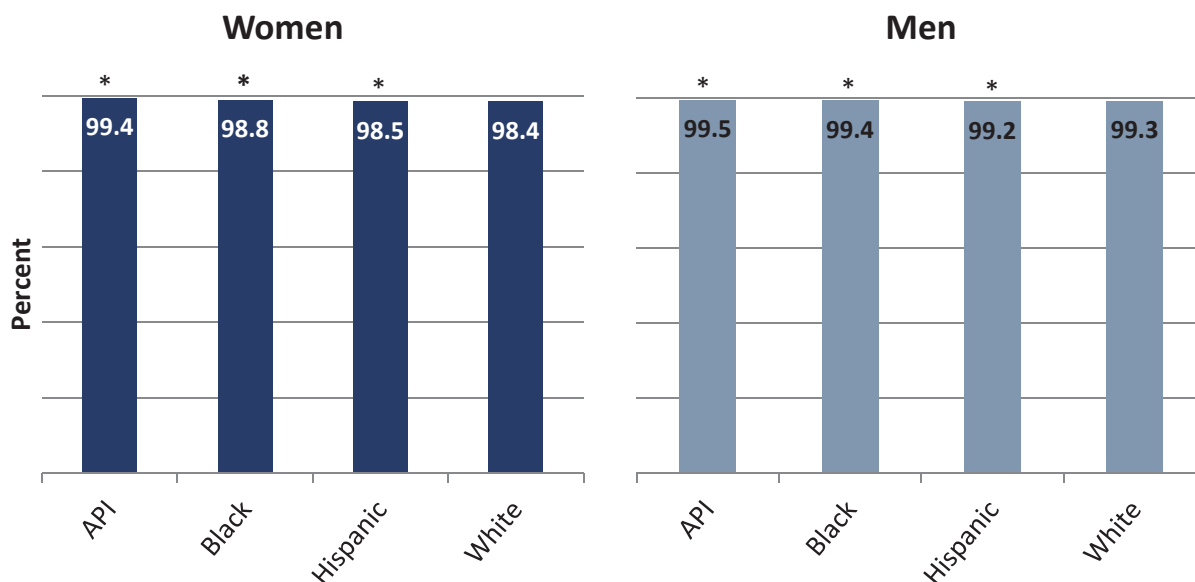
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This measure is limited to those who had a prescription for one or more of the following drugs for six months or longer: ACE inhibitors, ARBs, digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 years and older who were not prescribed a high-risk medication, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Long-term use of high-risk medication should be avoided in the elderly. In the 2016 data, it was observed that this standard of care was met more often for elderly API, Black, and Hispanic women than for elderly White women. In each case, the difference was less than 3 percentage points.
- In the 2016 data, it was observed that this standard of care was met more often for elderly API and Black men than for elderly White men. The difference between API and White men and between Black and White men was less than 3 percentage points. This standard of care was met less often for elderly Hispanic men than for elderly White men. This difference was also less than 3 percentage points.

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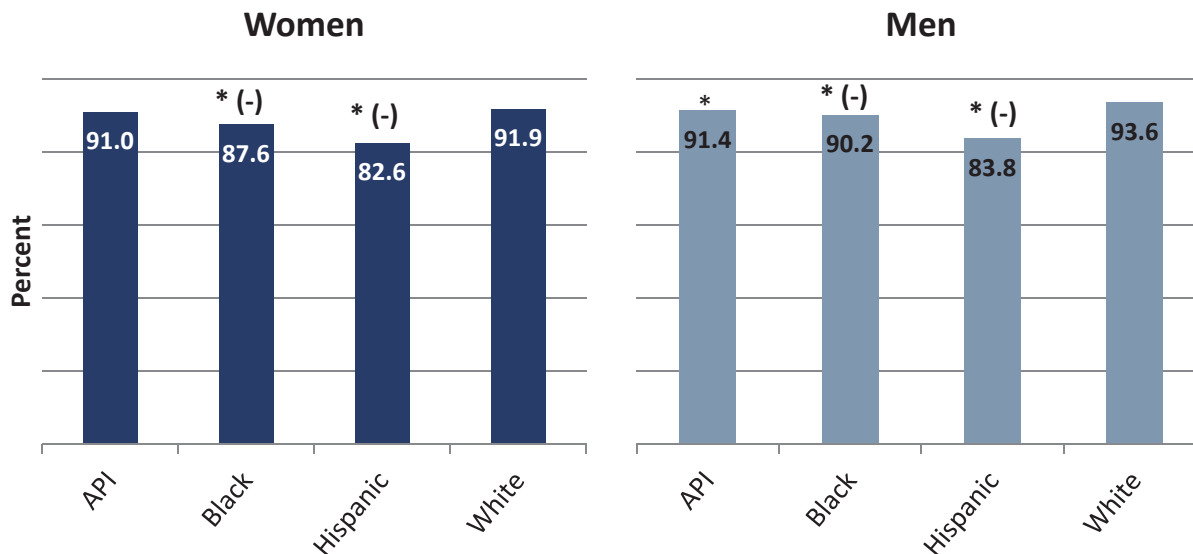
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 years and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with chronic renal failure. In the 2016 data, it was observed that this standard of care was met less often for elderly Black and Hispanic women than for elderly White women. In each case, the difference was greater than 3 percentage points. This standard of care was met as often for elderly API women as it was for White women.
- In the 2016 data, it was observed that this standard of care was met less often for elderly API, Black, and Hispanic men than for elderly White men. The differences between elderly Black and Hispanic men and elderly White men were greater than 3 percentage points. The difference between elderly API men and elderly White men was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

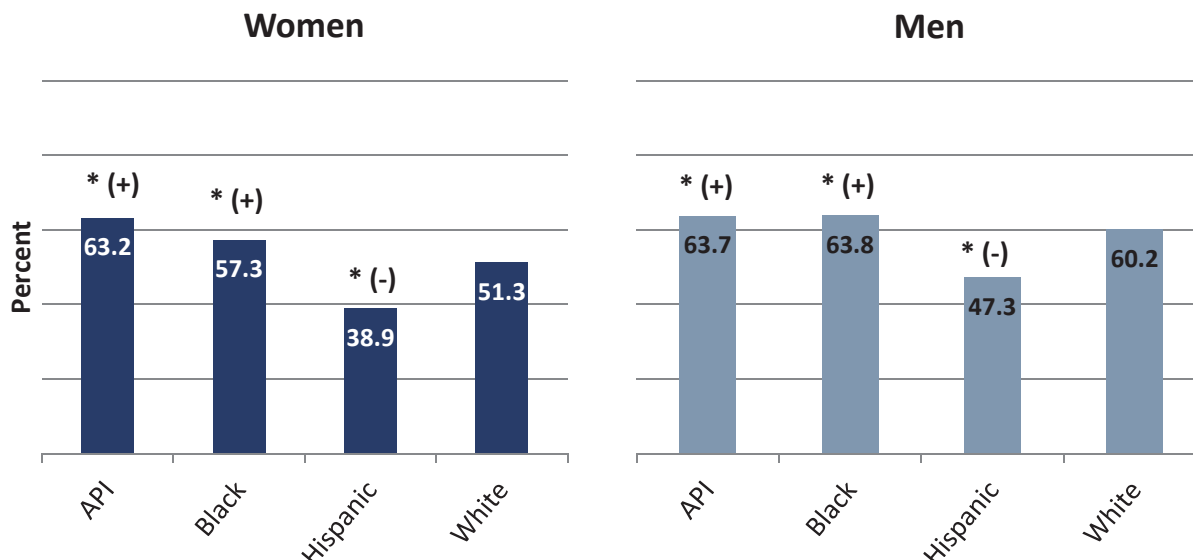
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes COX-2 selective NSAIDs and nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 years and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with dementia. In the 2016 data, it was observed that this standard of care was met more often for elderly API and Black women with dementia than for elderly White women with dementia. In each case, the difference was greater than 3 percentage points. The standard of care was met less often for elderly Hispanic women with dementia than for elderly White women with dementia. This difference was also greater than 3 percentage points.
- In the 2016 data, it was observed that the standard of care was met more often for elderly API and Black men with dementia than for elderly White men with dementia. In each case, the difference was greater than 3 percentage points. The standard of care was met less often for elderly Hispanic men with dementia than for elderly White men with dementia. This difference was also greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

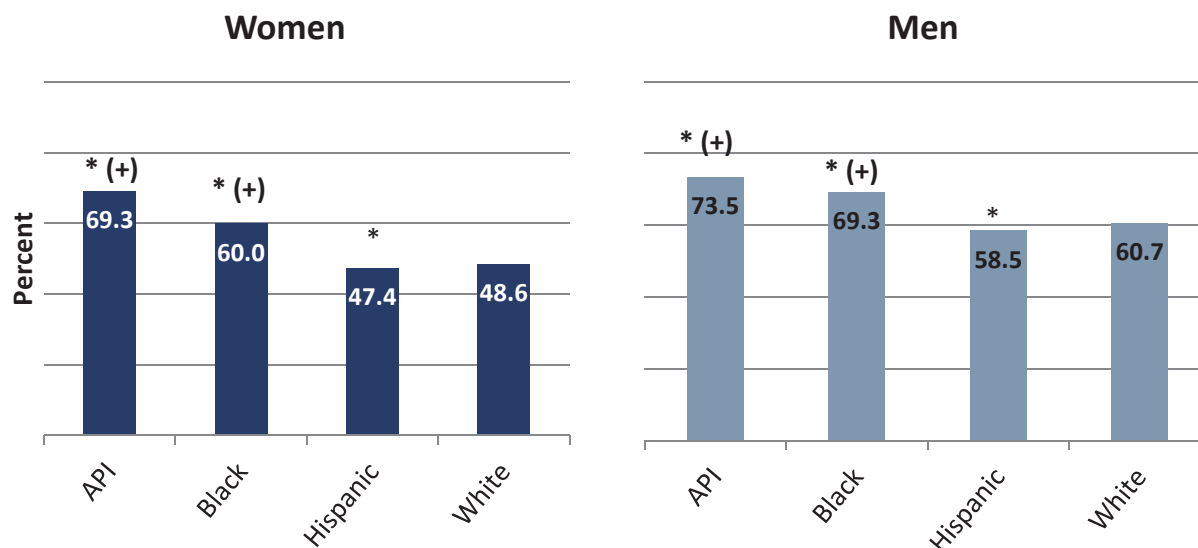
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 years and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2016 data, it was observed that this standard of care was met more often for elderly API and Black women with a history of falls than for elderly White women with a history of falls. In each case, the difference was greater than 3 percentage points. This standard of care was met less often for elderly Hispanic women with a history of falls than for elderly White women with a history of falls. In this case, the difference was less than 3 percentage points.
- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2016 data, it was observed that this standard of care was met more often for elderly API and Black men with a history of falls than for elderly White men with a history of falls. In each case, the difference was greater than 3 percentage points. This standard of care was met less often for elderly Hispanic men with a history of falls than for elderly White men with a history of falls. In this case, the difference was less than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

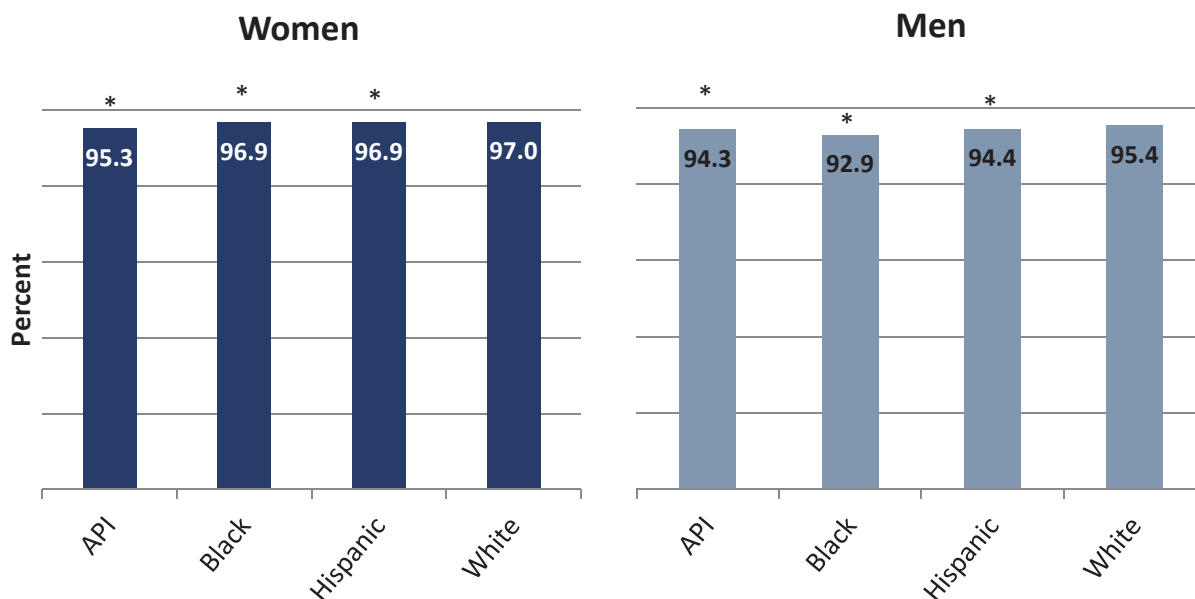
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

† This includes anticonvulsants, nonbenzodiazepine hypnotics, SSRIs, antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 years and older who had an ambulatory or preventive care visit, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women were less likely than White women to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men were less likely than White men to have had an ambulatory or preventive care visit. In each case, the difference was less than 3 percentage points.

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\* Significantly different from the score for Whites ( $p < .05$ ).

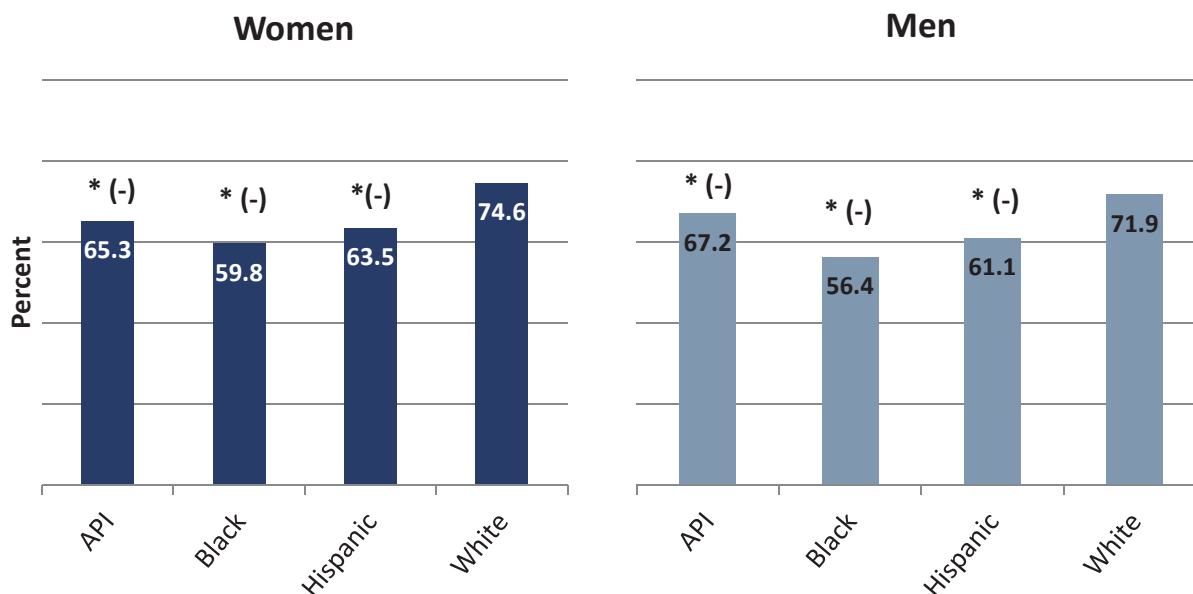
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites



## Clinical Care: Antidepressant Medication Management— Acute Phase Treatment

Percentage of Medicare enrollees aged 18 years and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. In each case, the difference was greater than 3 percentage points.

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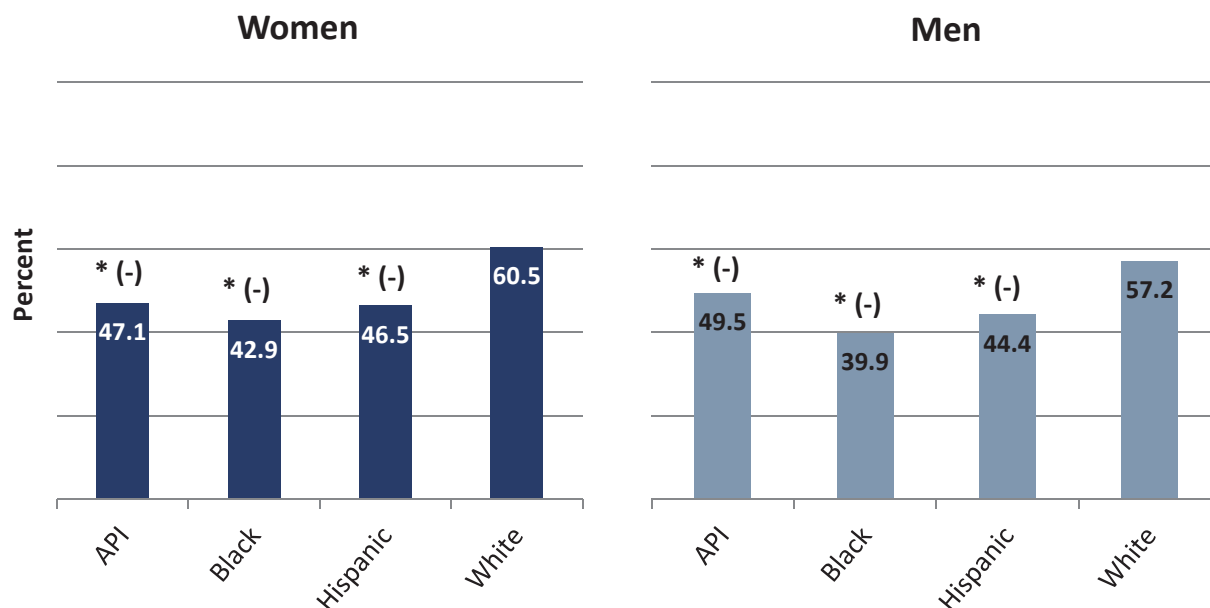
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Antidepressant Medication Management— Continuation Phase Treatment

Percentage of Medicare enrollees aged 18 years and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.
- API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. In each case, the difference was greater than 3 percentage points.

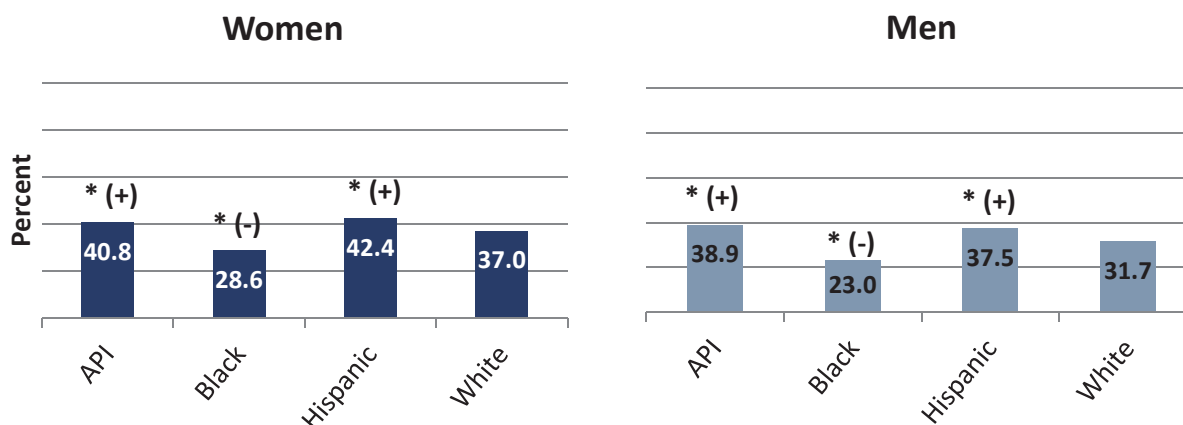
\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within seven days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within seven days of discharge, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of discharge. In contrast, Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of discharge. In each case, the difference was greater than 3 percentage points.
- API and Hispanic men hospitalized for a mental health disorder were more likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of discharge. In contrast, Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within seven days of discharge. In each case, the difference was greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

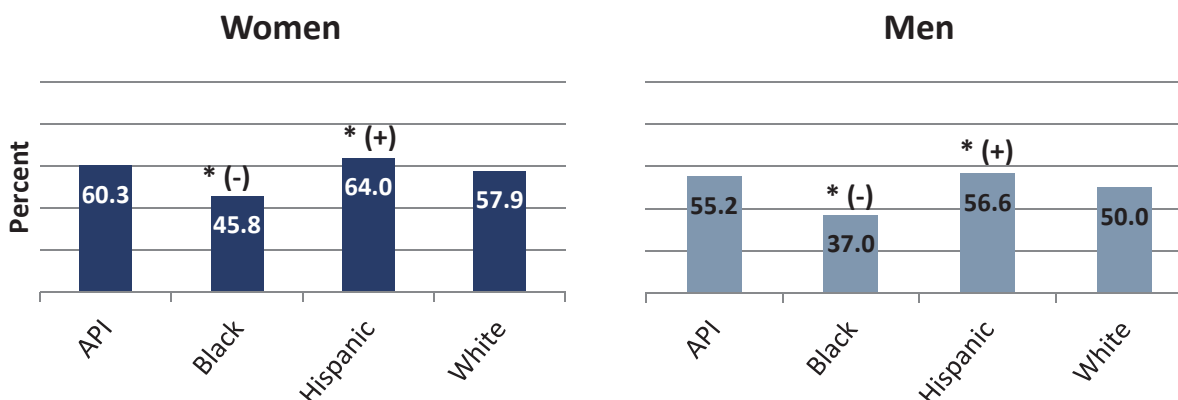
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. In contrast, Hispanic women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had such a follow-up visit. Each difference was greater than 3 percentage points. API women hospitalized for a mental health disorder were as likely as White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge.
- Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. In contrast, Hispanic men hospitalized for a mental health disorder were more likely than White men hospitalized for a mental health disorder to have had such a follow-up visit. Each difference was greater than 3 percentage points. API men hospitalized for a mental health disorder were as likely as White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge.

\* Significantly different from the score for Whites ( $p < .05$ ).

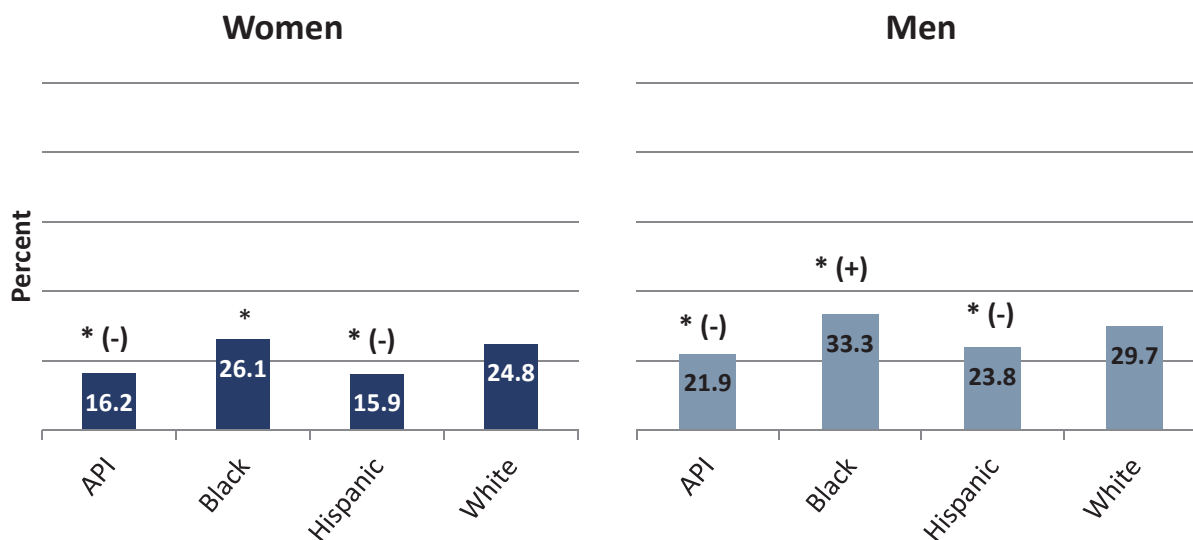
For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is six years old, the data used in this report are limited to adults.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiate<sup>‡</sup> treatment within 14 days of the diagnosis, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API and Hispanic women with a new episode of AOD dependence were less likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. In each case, the difference was greater than 3 percentage points. Black women with a new episode of AOD dependence were more likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. This difference was less than 3 percentage points.
- API and Hispanic men with a new episode of AOD dependence were less likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. In each case, the difference was greater than 3 percentage points. Black men with a new episode of AOD dependence were more likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. This difference was also greater than 3 percentage points.

\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

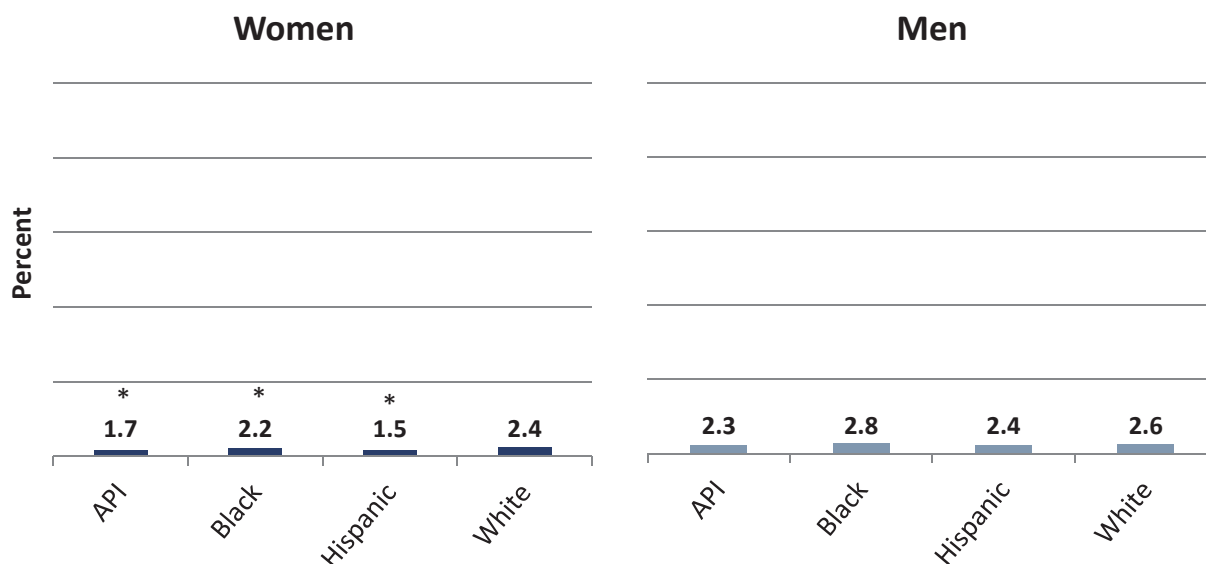
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

<sup>‡</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees aged 18 years and older<sup>†</sup> with a new episode of AOD dependence who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit, by race/ethnicity within gender, 2016



**NOTE:** Clinical quality data collected in 2016 from Medicare health plans nationwide. Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. API = Asian or Pacific Islander.

### Disparities

- API, Black, and Hispanic women with a new episode of AOD dependence and who initiated treatment were less likely than White women with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. In each case, the difference was less than 3 percentage points.
- API, Black, and Hispanic men with a new episode of AOD dependence and who initiated treatment were as likely as White men with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

\* Significantly different from the score for Whites ( $p < .05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

<sup>†</sup> Although the lower-bound age cutoff for this HEDIS measure is 13 years old, the data used in this report are limited to adults.

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## Appendix. Data Sources and Methods

### *The Medicare Consumer Assessment of Healthcare Providers and Systems Surveys*

The Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) surveys are mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with states serving as strata for beneficiaries with fee-for-service (FFS) coverage who are not enrolled in a prescription drug plan and with contracts serving as strata for all others. The 2016 survey attempted to contact 802,653 Medicare beneficiaries, and received responses from 291,170, a 37-percent response rate. The 2016 surveys represent all FFS beneficiaries, Medicare Advantage (MA) beneficiaries from 441 MA contracts that either were required to report (minimum of 600 eligible enrollees) or reported voluntarily (450–599 enrollees), and Prescription Drug Plan (PDP) beneficiaries from 60 PDP contracts with at least 1,500 eligible enrollees. The data presented in this report pertain only to MA beneficiaries.

### *The Healthcare Effectiveness Data and Information Set*

The Healthcare Effectiveness Data and Information Set (HEDIS) consists of 81 clinical care measures across five domains (National Committee for Quality Assurance [NCQA], 2016). These domains are effectiveness of care, access/availability of care, experience of care, utilization and relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of the NCQA. Whereas CAHPS data are collected only through surveys, HEDIS data are gathered both through surveys and through medical charts and insurance claims for hospitalizations, medical office visits, and procedures (Agency for Healthcare Research and Quality, 2015). In selecting the HEDIS measures to include in this report, we excluded measures that underwent a recent change in specification, were similar to reported measures preferred by Centers for Medicare and Medicaid Services (CMS), or were designated as unsuitable for this application by CMS experts.

### *Information on Race/Ethnicity*

The 2016 CAHPS survey asked beneficiaries, “Are you of Hispanic or Latino origin or descent?” The response options were the following: “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asked, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into one of seven mutually exclusive categories: Hispanic, multiracial, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander (API), Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: Those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their responses.



- Respondents without data regarding race/ethnicity were classified as unknown.
- We do not include estimates for the multiracial and unknown subgroups in this report.
- We also do not include estimates for the AI/AN subgroup, because there were too few AI/AN respondents to permit making accurate comparisons between this subgroup and whites when looking at women and men separately.

HEDIS data, unlike CAHPS data, do not contain the patient's self-reported race/ethnicity. Therefore, we imputed race/ethnicity for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Martino et al., 2013). In 2016, there were 506 MA contracts that supplied the 13,395,973 HEDIS-measure records used.

### *Information on Gender*

Information on the gender of MA beneficiaries is gathered from administrative records.

### *Analytic Approach*

The CAHPS measures presented in this report are composite measures that summarize, through averaging, the answers to two or more related CAHPS survey questions, or items. The annual flu vaccine measure is included in the CAHPS survey and is thus grouped with other CAHPS measures in this report. It is, however, considered to be a HEDIS measure. This is a single-item measure rather than a composite.

CAHPS estimates for different racial/ethnic groups are from case-mix adjusted linear regression models that contain health contract intercepts, racial/ethnic indicators, and the following case-mix adjusters: age, education, self-rated health and mental health, dual eligibility/low-income subsidy, and proxy status. No adjustment was made for survey language. Race/ethnicity was coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White as the (omitted) reference group. CAHPS estimates for men and women are from case-mix adjusted linear regression models that contain health contract intercepts, an indicator for female gender (with male as the reference group), and the same set of case-mix adjusters used in the racial/ethnic group models. CAHPS estimates for men and women of different racial/ethnic backgrounds are from case-mix adjusted linear regression models, stratified by gender, that contain health contract intercepts, racial/ethnic indicators, and the case-mix adjusters.

Predicted probabilities of race/ethnicity were used as weights to develop HEDIS-measure estimates for each racial/ethnic group (Elliott et al., 2009). None of the HEDIS measures reported (including the annual flu vaccine measure) is case-mix adjusted.

Statistical significance tests were used to compare the model-estimated scores for each racial/ethnic minority group with the score for Whites and to compare the model-estimated scores for women and men. A difference in scores is denoted as statistically significant if there is less than a 5-percent chance that the difference could have resulted due to sampling error alone. Differences that are statistically significant and larger than 3 points on a 0–100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant. That is, in the charts that present national data on racial/ethnic and gender differences in patient experience (CAHPS) and clinical care (HEDIS), differences that are not

## Frequently Asked Questions Reporting of National Medicare Advantage Quality Scores by Race, Ethnicity, and Gender

### 1. What is CMS announcing today?

CMS is announcing the release of a [national-level report](#) detailing disparities in the health care experiences and quality of care received by Medicare beneficiaries enrolled in Medicare Advantage (MA). The report looks at racial, ethnic, and gender differences in health care experiences and clinical care received in 2016, compares quality of care for women and men, and looks at racial and ethnic differences in quality of care among women and men separately. The release of this report is timed to coincide with Minority Health Month in April. Each year at this time CMS plans to make additional reports available to the general public on the [CMS OMH](#) website.

### 2. Why is CMS highlighting this information?

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes (2016 National Healthcare Quality and Disparities Report - <https://www.ahrq.gov/research/findings/nhqrdr/index.html>). Gender disparities also exist across a number of conditions. To comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Additionally, the IMPACT Act of 2014 requires the HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE) to conduct a study that examines the effect of individuals' socioeconomic status on quality measures and resource use and other measures for individuals under the Medicare program.

### 3. What do these data represent?

The data presented in the report indicate overall national differences in the care delivered to Medicare beneficiaries overall and beneficiaries who identify as Asian or Pacific Islander, Black/African American, Hispanic, or White. The data also indicate how racial and ethnic differences in the care delivered to Medicare beneficiaries vary for women and men.

### 4. How can MA contracts use this information to improve performance?

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures aggregated at the national level, stratified by race and ethnicity, by gender, and by race and ethnicity within gender. This information may be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally appropriate quality improvement interventions and strategies.

### 5. Are these results included in the MA and Part D Star Ratings Program?

NO. This effort is entirely separate from the MA and Part D Star Ratings program. These data are intended to be used for health and drug plan quality improvement and accountability purposes.

**6. Do the data presented in this release suggest that CMS' Categorical Adjustment Index used to account for differences in performance among enrollees with low income subsidy and/or dual eligible and disability status in the Part C and D Star Ratings programs should be modified?**

NO. The descriptive data in this release do not suggest that use of the Categorical Adjustment Index in the Part C and D Star Ratings is inappropriate. The analyses released today examine racial, ethnic, and gender differences in HEDIS and CAHPS scores.

**7. Do these results affect MA contract payments?**

NO. These results are not used for payment purposes of any sort. As required by the IMPACT Act of 2014, the HHS ASPE has examined the differential effect of a number of demographic variables, including race and ethnicity, on the Medicare program. Results from the ASPE Report to Congress on *Social Risk Factors and Performance Under Medicare's Value-Based Purchasing Programs* can be found [here](#).

**8. How is gender reported in these results?**

For both the patient experience (CAHPS) measures and the clinical care (HEDIS) measures, scores are reported for women and men.

**9. How is race and ethnicity reported in these results?**

For the racial/ethnic group comparisons that combine data from women and men, scores on patient experience (CAHPS) measures are provided for five racial/ethnic groups: (1) American Indians or Alaska Natives, (2) Asians or Pacific Islanders (including Native Hawaiians), (3) Blacks, (4) Hispanics, and (5) Whites. These racial/ethnic groups were chosen because enough information was available to describe the experiences of beneficiaries in these groups. Scores on clinical care (HEDIS) measures are provided for the same groups except American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine if a beneficiary is in this group. For the racial/ethnic group comparisons within gender, scores on patient experience measures and clinical care measures are limited to Asians or Pacific Islanders, Blacks, Hispanics, and Whites. Scores on patient experience measures are not presented for American Indians or Alaska Natives by gender because sample sizes for that group are insufficient for reliable reporting at the level of a single gender.

**10. If the score for a particular racial or ethnic minority group is lower than the score for Whites, what does that mean?**

At the national level, for patient experience measures, a lower score for a particular racial or ethnic minority group means that members of that group reported worse experiences than Whites (either overall or for a particular gender) after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure, are not adjusted for these other characteristics. At the national level, for clinical care measures, a lower score for a particular racial or ethnic minority group means that members of that group received worse care than Whites (either overall or for a particular gender).

statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a difference of this size is considered to be of moderate magnitude (Paddison et al., 2013).

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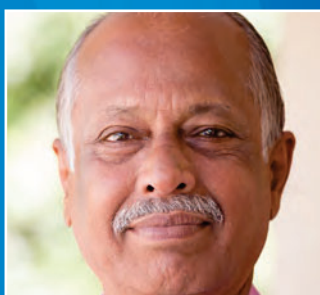
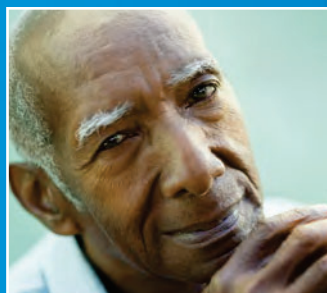
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# RACIAL<sup>AND</sup> ETHNIC DISPARITIES BY GENDER IN HEALTH CARE in Medicare Advantage



April 2017

## Background and Purpose

This report presents summary information on the quality of health care received by Medicare beneficiaries. Quality-of-care data are presented at the national level for both patient experience and quality-of-care measures and are shown for women and men of different racial/ethnic groups. This information may be of interest to Medicare beneficiaries, Medicare Advantage organizations and prescription drug plan sponsors, and others interested in better understanding how the care received by racial/ethnic minority groups compares with the care received by Whites of the same gender.

In all, this report provides data regarding 8 patient experience measures and 24 clinical care measures. The patient experience data were collected from a national survey of Medicare beneficiaries, known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this report are from the 2015 Medicare CAHPS survey. Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get information from their drug plans about prescription drug coverage and cost.

The clinical care data were gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from Medicare health plans (Medicare Advantage plans) nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS). Examples of clinical care measures include whether beneficiaries received appropriate screening for colon cancer, whether beneficiaries with diabetes received a test that determines whether their blood sugar is under control, and whether appropriate treatment was provided to beneficiaries with chronic obstructive pulmonary disease. The HEDIS data reported here were collected in 2015.

In a companion [report](#), *Racial and Ethnic Disparities in Health Care in Medicare Advantage*, racial/ethnic group comparisons are shown combining women and men. Here, racial and ethnic group comparisons are shown separately for women and men because there is evidence that racial and ethnic differences in health care may vary by gender. For both the patient experience and the clinical care measures, data are provided for women and men in 4 mutually exclusive racial/ethnic groups: (1) Asians or Pacific Islanders (including Native Hawaiians), (2) Blacks, (3) Hispanics, and (4) Whites. These groups were chosen because enough information was available to describe the care received by the beneficiaries in these groups.

The report first presents a pair of bar charts that show, separately for women and men, the number of patient experience measures (out of 8) for which members of each racial/ethnic minority group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. Following these stacked bar charts are separate bar charts for each patient experience measure. These charts show, separately for women and men, the average score for each racial/ethnic group on a 0–100 scale. The average score represents the percentage of the best possible score for a given demographic group for that measure. For example, consider a measure for which the best possible score is 4 and the worst possible score is 1. If a given group's score on that measure is 3.5, then that group's score on a 0–100 scale is  $[(3.5-1)/(4-1)]*100 = 83.3$ .

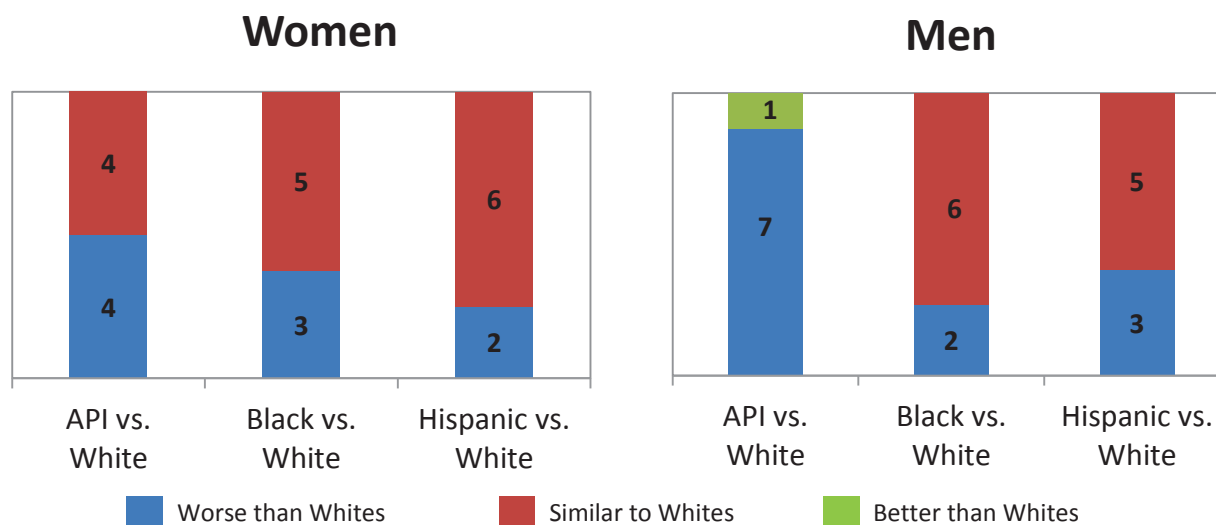
After the patient experience measures, the report presents a pair of stacked bar charts that show, separately for women and men, the number of clinical care measures (out of 24) for which members of each racial/ethnic minority group experienced care that was worse than, similar to, or better than the care experienced by Whites. Following these stacked bar charts are separate bar charts for each clinical care measure that show, separately for women and men, the percentage of beneficiaries in each racial/ethnic group whose care met the standard called for by the specific measure (e.g., a test or treatment).

For detailed information on data sources and analytic methods, see the appendix.



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (of 8) for which women and men of selected racial/ethnic minority groups reported experiences that were worse than, similar to, or better than the experiences reported by White women and men in 2015



**Data source:** These charts summarize data from all Medicare Advantage beneficiaries nationwide who participated in the 2015 Medicare CAHPS survey.

**Key:** API = Asian or Pacific Islander.

**Notes:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities:

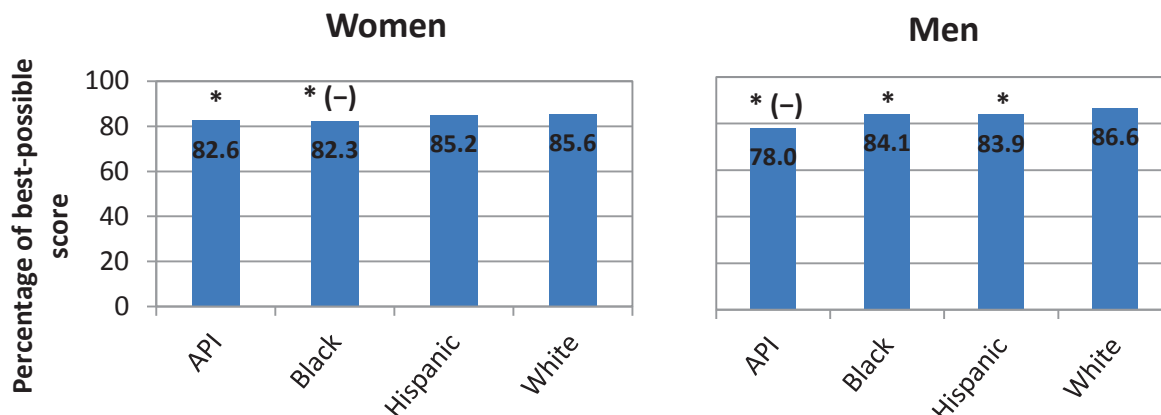
- **Better** = Population had better patient experience than Whites did. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points† on a 0–100 scale, and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar patient experiences. Differences are less than 3 points on a 0–100 scale or not statistically significant.
- **Worse** = Population had worse patient experience than Whites did. Differences are statistically significant, are equal to or larger than 3 points on a 0–100 scale, and favor Whites.

**Example:** Compared with White women, Hispanic women reported worse patient experience for 2 of the 8 patient experience measures and similar experience for 6 of the measures.

† A difference that is considered to be of moderate magnitude. Paddison CA, Elliott MN, Haviland AM, Farley DO, Lyratzopoulos G, Hambarsoomian K, Dembosky JW, Roland MO. Experiences of care among Medicare beneficiaries with ESRD: Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results. *Am J Kidney Dis*. 2013;61, pp. 440–449.

## Patient Experience: Getting Needed Care

Percentage of the best-possible score (on a 0–100 scale) earned on how easy it is for patients to get needed care,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Black and White are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, Black women and API women reported worse<sup>††</sup> experiences getting needed care than White women reported. The difference between Black women and White women was greater than 3 points on a 0–100 scale. The difference between API women and White women was less than 3 points on a 0–100 scale. Hispanic women reported experiences with getting needed care that were similar to the experiences reported by White women.
- In the 2015 data, API, Black, and Hispanic men reported worse experiences getting needed care than White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. The differences between Black and Hispanic men and White men were less than 3 points on a 0–100 scale.

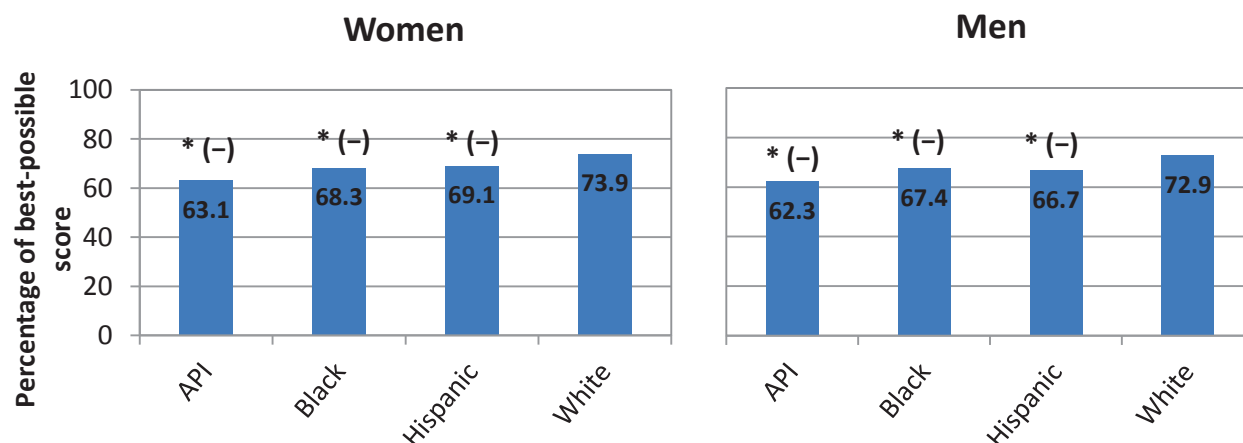
<sup>†</sup> This includes how easy it is to get appointments with specialists and how easy it is to get needed care, tests, or treatment.

<sup>††</sup> Unlike on the preceding page, we use the terms *better* or *worse* to describe all statistically significant differences on individual patient experience measures. We note in the “Disparities” section for each of these measures where differences are greater or less than 3 points.



## Patient Experience: Getting Appointments and Care Quickly

Percentage of the best-possible score (on a 0–100 scale) earned on how quickly patients get appointments and care,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

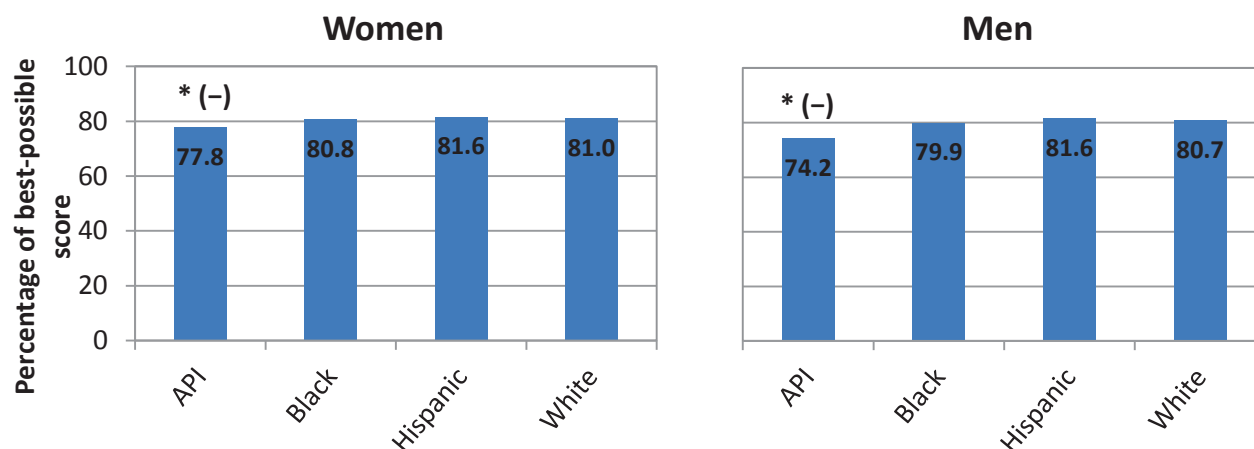
### Disparities

- In the 2015 data, API, Black, and Hispanic women reported getting appointments and care less quickly than White women did. The differences between API, Black, and Hispanic women and White women were greater than 3 points on a 0–100 scale.
- In the 2015 data, API, Black, and Hispanic men reported getting appointments and care less quickly than White men did. The differences between API, Black, and Hispanic men and White men were greater than 3 points on a 0–100 scale.

<sup>†</sup> This includes how easy it is to get care that is needed right away, as well as how easy it is to get appointments for checkups and routine care.

## Patient Experience: Customer Service

Percentage of the best-possible score (on a 0–100 scale) earned on how easy it is to get information and help from one's plan when needed,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

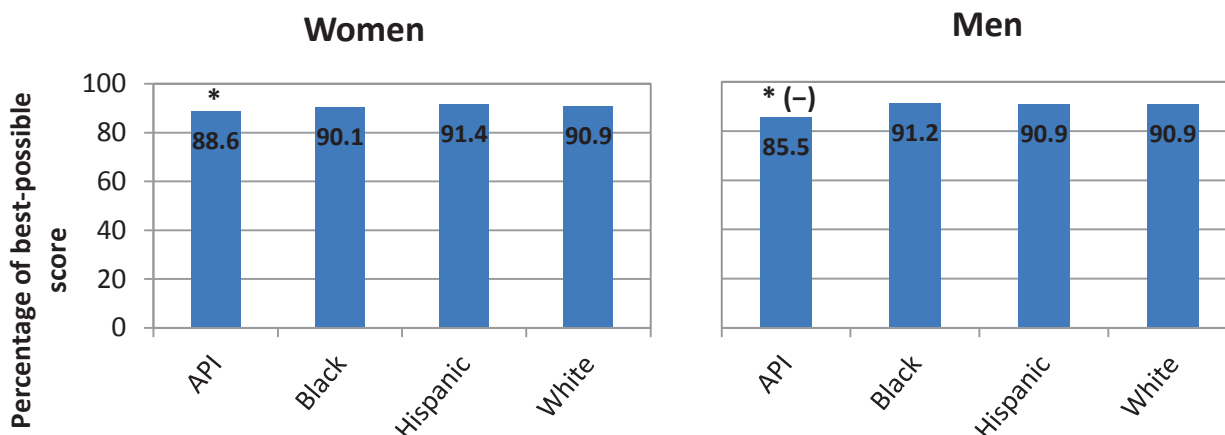
### Disparities

- In the 2015 data, API women reported that it was harder to get information and help from their plans than White women did. The difference between API women and White women was greater than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with getting information and help from their plans that were similar to the experiences reported by White women.
- In the 2015 data, API men reported that it was harder to get information and help from their plans than White men did. The difference between API men and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with getting information and help from their plans that were similar to the experiences reported by White men.

<sup>†</sup> This includes how often health plan customer service staff provide the information or help that beneficiaries need and treat beneficiaries with courtesy and respect, as well as how often forms from the health plan are easy to fill out.

## Patient Experience: Doctors Who Communicate Well

Percentage of the best-possible score (on a 0–100 scale) earned on how well doctors communicate with patients,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

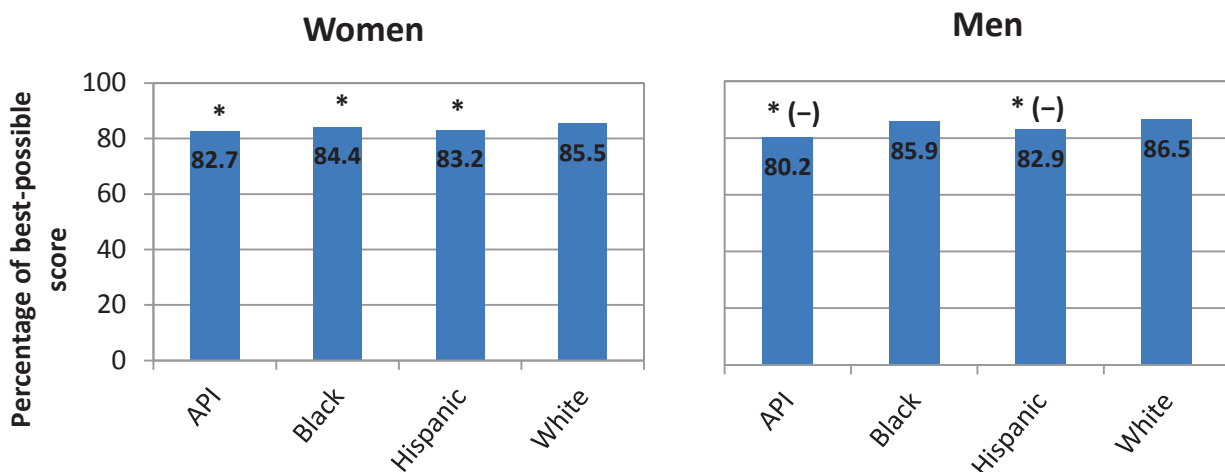
### Disparities

- In the 2015 data, API women reported worse doctor communication than White women did. The difference between API women and White women was less than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with doctor communication that were similar to the experiences reported by White women.
- In the 2015 data, API men reported worse doctor communication than White men did. The difference between API men and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with doctor communication that were similar to the experiences reported by White men.

<sup>†</sup> This includes how often doctors explain things in a way that is easy to understand, listen carefully, show respect for what patients have to say, and spend time with patients.

## Patient Experience: Care Coordination

Percentage of the best-possible score (on a 0–100 scale) earned on how well patient care was coordinated,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

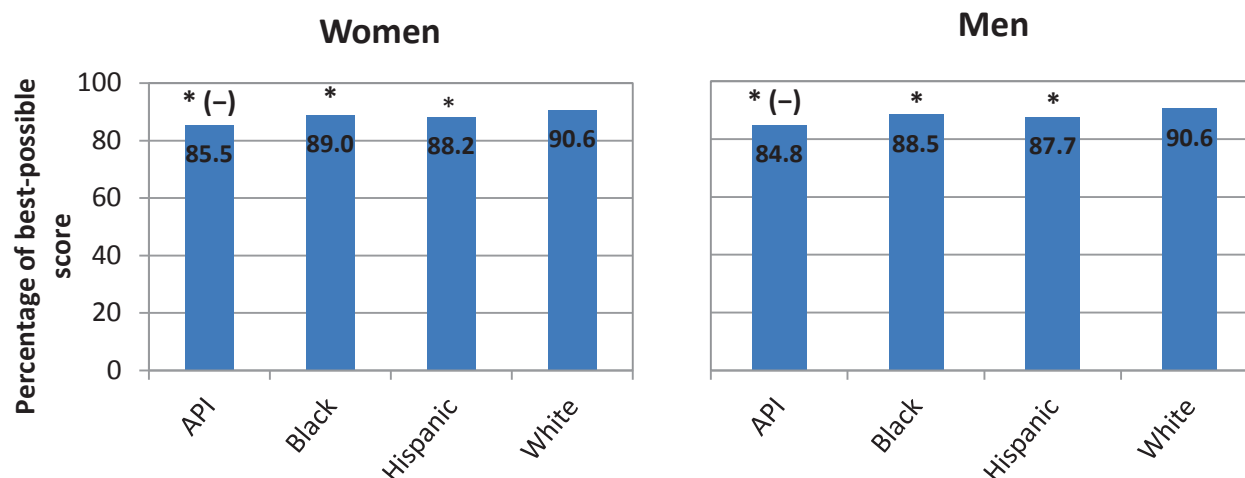
### Disparities

- In the 2015 data, API, Black, and Hispanic women reported worse care coordination than White women did. The difference between each of these groups of women and White women was less than 3 points on a 0–100 scale.
- In the 2015 data, API and Hispanic men reported worse care coordination than White men did. The difference between each of these groups of men and White men was greater than 3 points on a 0–100 scale. Black men reported experiences with care coordination that were similar to the experiences reported by White men.

<sup>†</sup> This includes whether doctors had the records and information they need about patients' care and how quickly patients received their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percentage of the best-possible score (on a 0–100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plans,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

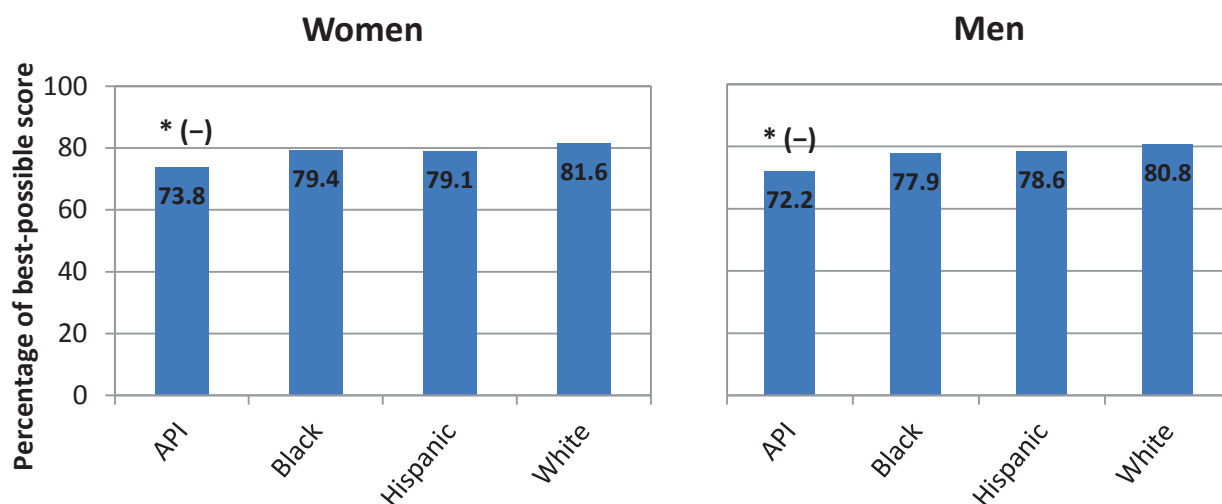
### Disparities

- In the 2015 data, API, Black, and Hispanic women reported more difficulty getting needed prescription drugs than White women reported. The difference between API women and White women was greater than 3 points on a 0–100 scale. The difference between Black women and White women was less than 3 points on a 0–100 scale, as was the difference between Hispanic women and White women.
- In the 2015 data, API, Black, and Hispanic men reported more difficulty getting needed prescription drugs than White men reported. The difference between API men and White men was greater than 3 points on a 0–100 scale. The difference between Black men and White men was less than 3 points on a 0–100 scale, as was the difference between Hispanic men and White men.

<sup>†</sup> This includes how often it is easy to use the plan to get prescribed medications and how easy it is to fill prescriptions at a pharmacy or by mail.

## Patient Experience: Getting Information About Prescription Drugs

Percentage of the best-possible score (on a 0–100 scale) earned on how easy it was for beneficiaries to get information from their plan about prescription drug coverage and cost,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

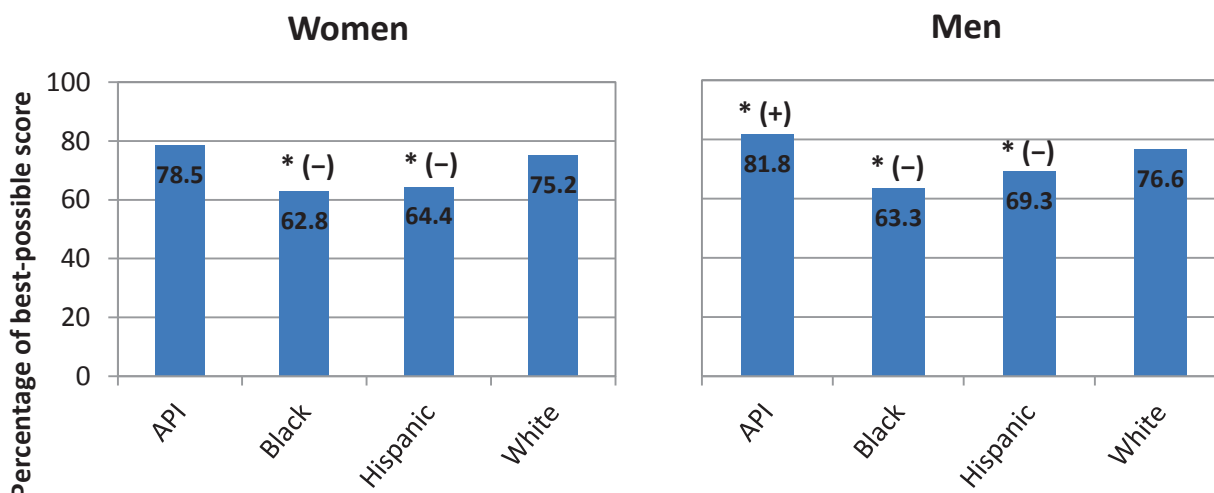
### Disparities

- In the 2015 data, API women reported more difficulty getting information about prescription drugs than White women did. The difference between API women and White women was greater than 3 points on a 0–100 scale. Black and Hispanic women reported experiences with getting information about prescription drugs that were similar to the experiences reported by White women.
- In the 2015 data, API men reported more difficulty getting information about prescription drugs than White men did. The difference between API men and White men was greater than 3 points on a 0–100 scale. Black and Hispanic men reported experiences with getting information about prescription drugs that were similar to the experiences reported by White men.

<sup>†</sup> This includes information about which prescription medications are covered by the plan and how much beneficiaries have to pay for their prescription medications.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race/ethnicity within gender, 2015



**Data source:** Medicare CAHPS survey, 2015.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

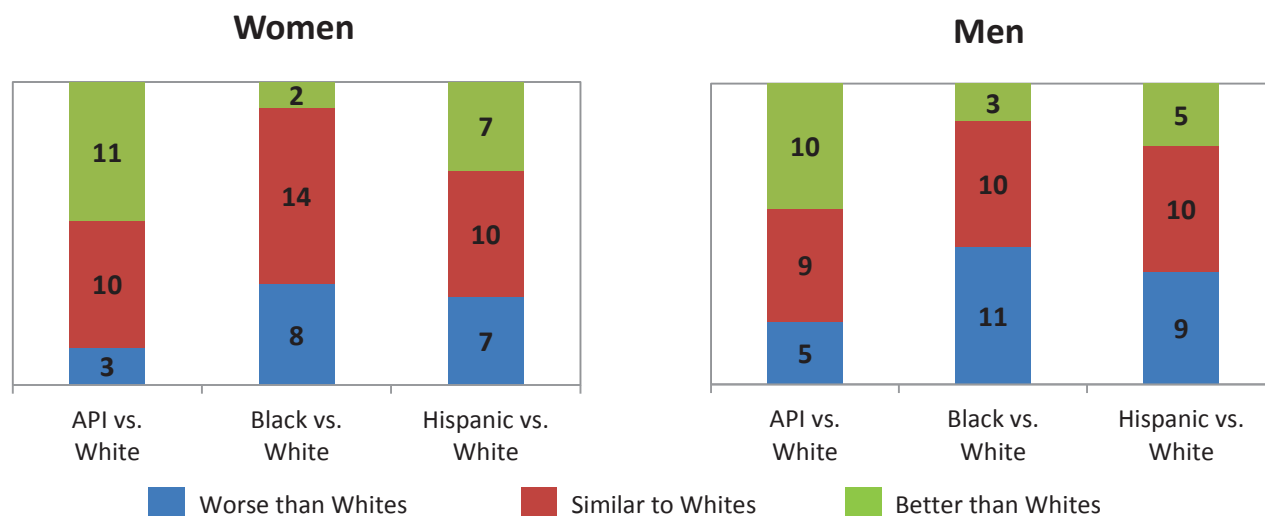
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, Black and Hispanic women were less likely than White women to have received the flu vaccine. The differences between Black and Hispanic women and White women were greater than 3 percentage points. API women were as likely as White women to have received the flu vaccine.
- In the 2015 data, API men were more likely than White men to have received the flu vaccine. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men were less likely than White men to have received the flu vaccine. The differences between Black and Hispanic men and White men were greater than 3 percentage points.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (of 24) for which women/men of selected racial/ethnic minority groups experienced care that was worse than, similar to, or better than the care experienced by White women/men in 2015



**Data source:** Information in this chart is from clinical quality (HEDIS) data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Notes:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. Data are not given on American Indians or Alaska Natives because the clinical care data lack the information to reliably determine whether a beneficiary is in this group.

Within each gender, the relative difference between a selected group and Whites is used to assess disparities:

- **Better** = Population had better clinical care than Whites did. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 percentage points,<sup>†</sup> and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar clinical care. Differences are less than 3 points on a 0–100 scale or not statistically significant.
- **Worse** = Population had worse clinical care than Whites did. Differences are statistically significant, are equal to or larger than 3 percentage points, and favor Whites.

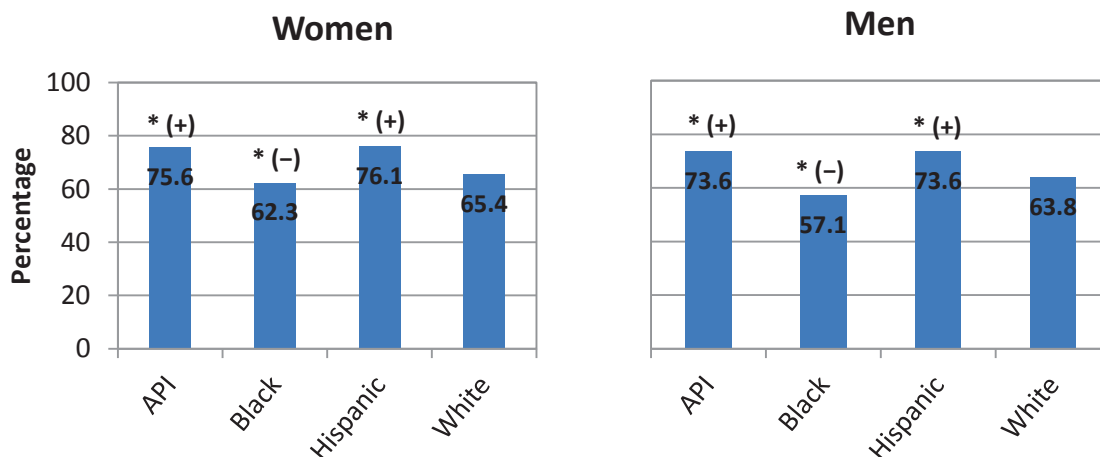
**Example:** Compared with White women, Hispanic women had worse-quality care for 7 of the 24 clinical care measures, similar quality care for 10 measures, and better-quality care for 7 measures.

<sup>†</sup> A difference that is considered to be of moderate magnitude. Paddison CA, Elliott MN, Haviland AM, Farley DO, Lyratzopoulos G, Hambarsoomian K, Dembosky JW, Roland MO. Experiences of care among Medicare beneficiaries with ESRD: Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey results. *Am J Kidney Dis*. 2013;61, pp. 440–449.



## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees ages 50 to 75 who had appropriate screening for colorectal cancer, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

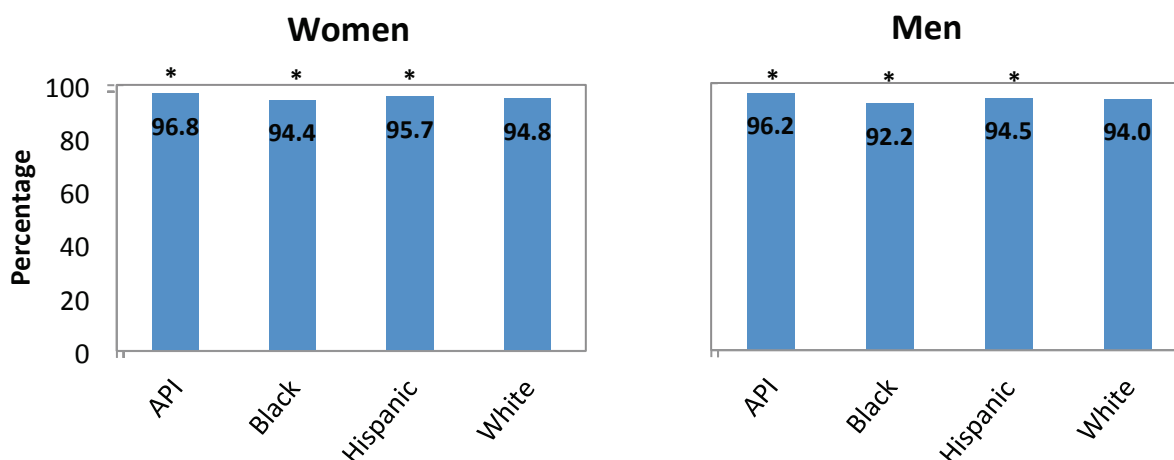
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women were more likely than White women to have been appropriately screened for colorectal cancer. The differences between API and Hispanic women and White women were greater than 3 percentage points. Black women were less likely than White women to have been appropriately screened for colorectal cancer. The difference between Black women and White women was greater than 3 percentage points.
- In the 2015 data, API and Hispanic men were more likely than White men to have been appropriately screened for colorectal cancer. The differences between API and Hispanic men and White men were greater than 3 percentage points. Black men were less likely than White men to have been appropriately screened for colorectal cancer. The difference between Black men and White men was greater than 3 percentage points.

## Clinical Care: Diabetes Care—Blood Sugar Testing

Percentage of Medicare enrollees ages 18 to 75 with diabetes (type 1 and type 2) who had 1 or more HbA1c tests in the past year, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

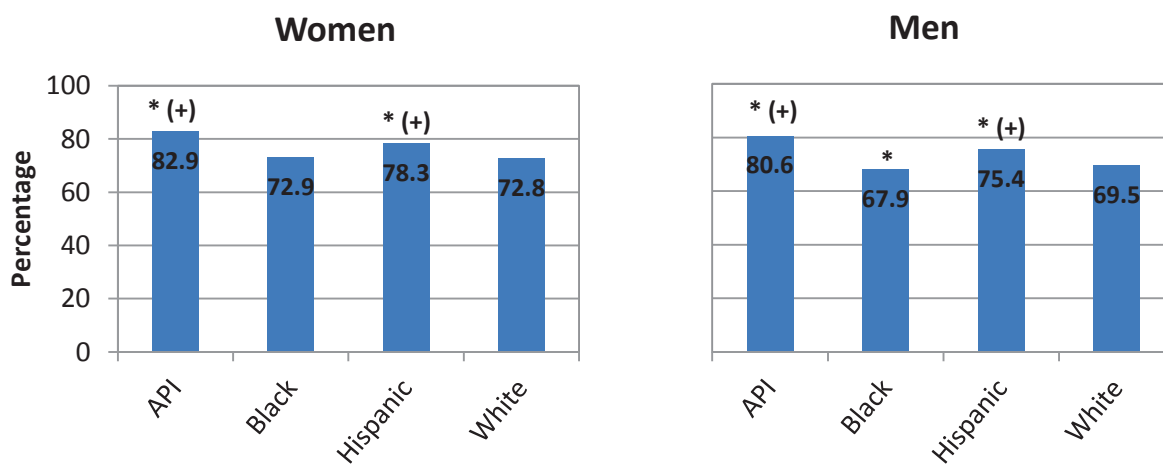
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women with diabetes were more likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between API and Hispanic women and White women was less than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black women and White women was less than 3 percentage points.
- In the 2015 data, API and Hispanic men with diabetes were more likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The differences between API and Hispanic men and White men were less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had their blood sugar tested at least once in the past year. The difference between Black men and White men was less than 3 percentage points.

## Clinical Care: Diabetes Care—Eye Exam

Percentage of Medicare enrollees ages 18 to 75 with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For differences statistically significant between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

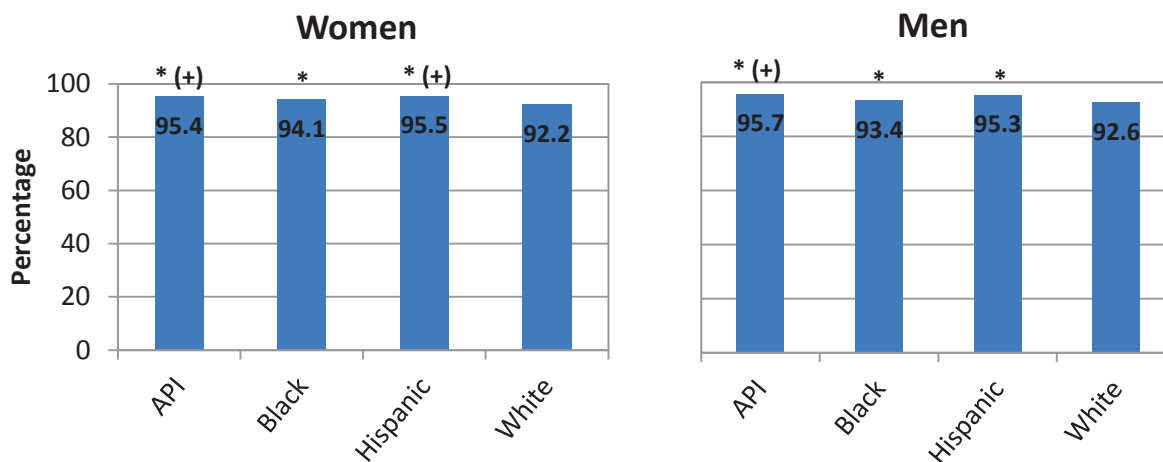
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women with diabetes were more likely than White women with diabetes to have had an eye exam in the past year. The differences between API and Hispanic women and Whites were greater than 3 percentage points. Black women with diabetes were as likely as White women with diabetes to have had an eye exam in the past year.
- In the 2015 data, API and Hispanic men with diabetes were more likely than White men with diabetes to have had an eye exam in the past year. The differences between API and Hispanic men and White men were greater than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have had an eye exam in the past year. The difference between Black men and White men was less than 3 percentage points.

## Clinical Care: Diabetes Care—Kidney Disease Monitoring

Percentage of Medicare enrollees ages 18 to 75 with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

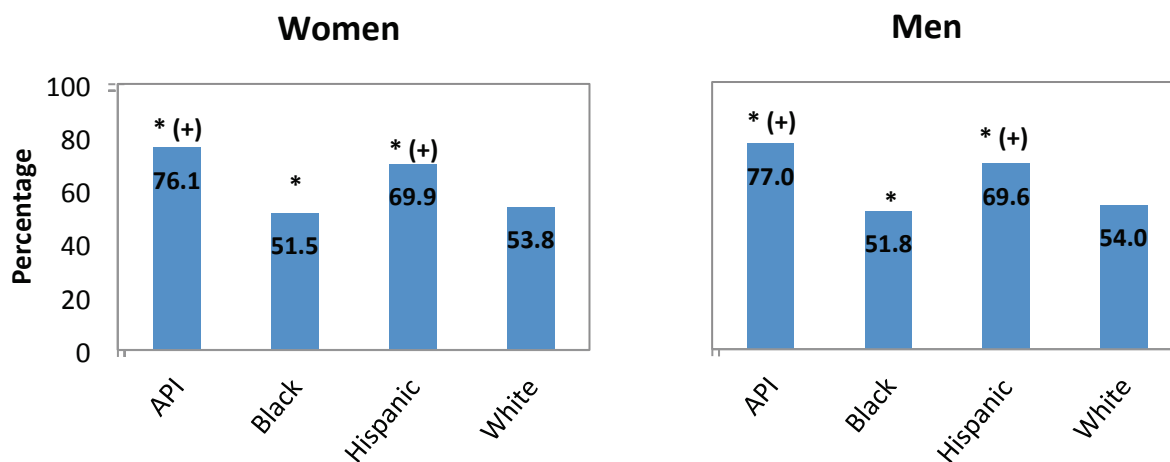
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API, Black, and Hispanic women with diabetes were more likely than White women with diabetes to have had medical attention for nephropathy in the past year. The differences between API and Hispanic women and White women were greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points.
- In the 2015 data, API, Black, and Hispanic men with diabetes were more likely than White men with diabetes to have had medical attention for nephropathy in the past year. The differences between API men and White men were greater than 3 percentage points. The difference between Black and Hispanic men and White men was less than 3 percentage points.

## Clinical Care: Diabetes Care—Blood Pressure Controlled

Percentage of Medicare enrollees ages 18 to 75 with diabetes (type 1 and type 2) whose most recent blood pressure was less than 140/90, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

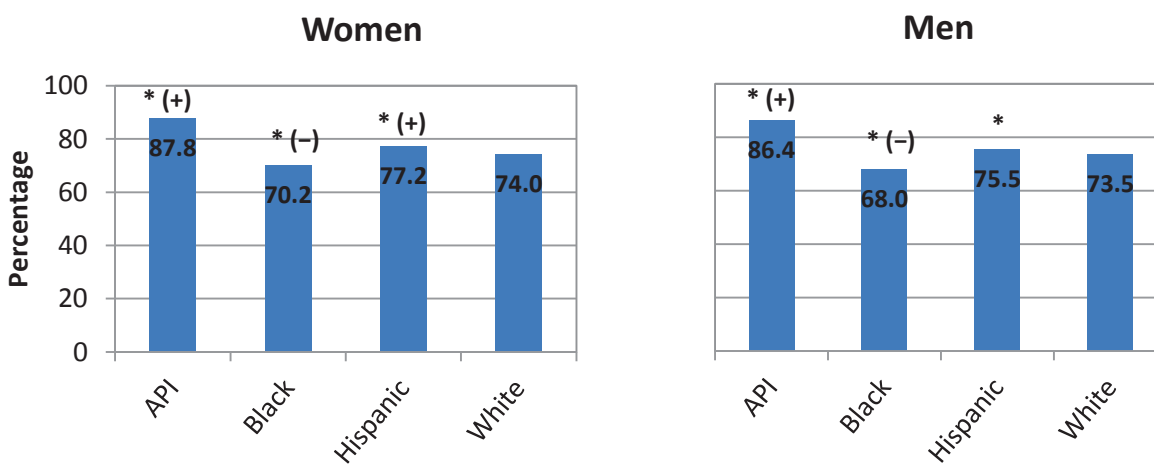
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood pressure under control. The differences between API and Hispanic women and White women were greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have their blood pressure under control. The difference between Black women and White women was less than 3 percentage points.
- In the 2015 data, API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood pressure under control. The differences between API and Hispanic men and White men were greater than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have their blood pressure under control. The difference between Black men and White men was less than 3 percentage points.

## Clinical Care: Diabetes Care—Blood Sugar Controlled

Percentage of Medicare enrollees ages 18 to 75 with diabetes (type 1 and type 2) whose most recent HbA1c level was 9 percent or less, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

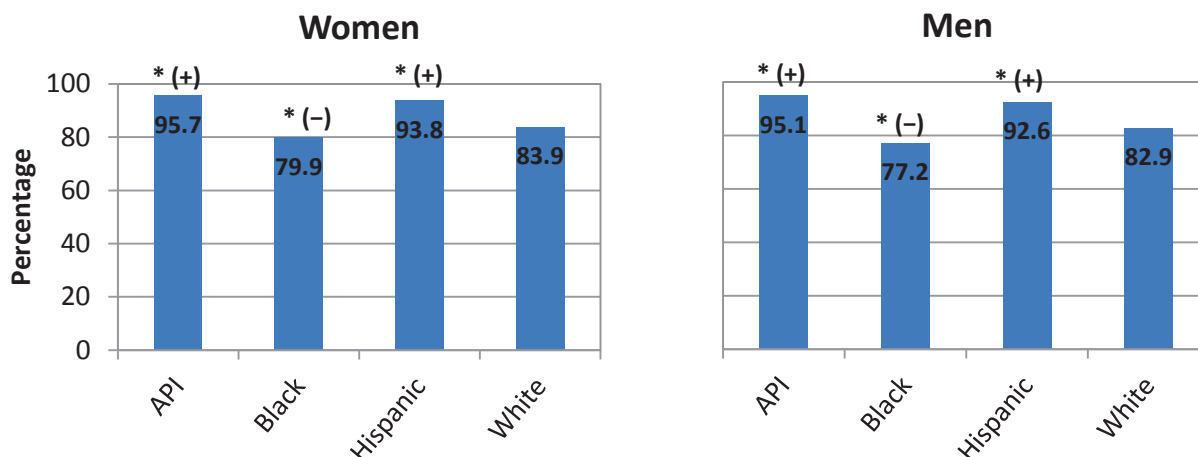
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women with diabetes were more likely than White women with diabetes to have their blood sugar levels under control. The difference between each of these groups of women and White women was greater than 3 percentage points. Black women with diabetes were less likely than White women with diabetes to have their blood sugar levels under control. The difference between Black women and White women was greater than 3 percentage points.
- In the 2015 data, API and Hispanic men with diabetes were more likely than White men with diabetes to have their blood sugar levels under control. The difference between API men and White men was greater than 3 percentage points. The difference between Hispanic men and White men was less than 3 percentage points. Black men with diabetes were less likely than White men with diabetes to have their blood sugar levels under control. The difference between Black men and White men was greater than 3 percentage points.

## Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees ages 18 to 74 who had an outpatient visit and whose body mass index (BMI) was documented in the past 2 years, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

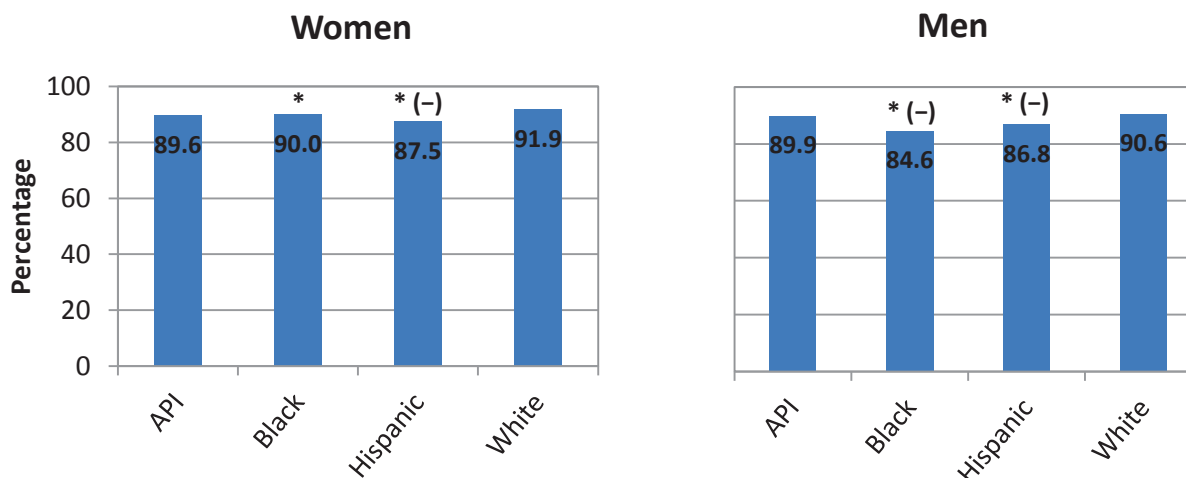
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women were more likely than White women to have had their BMIs documented. The differences between API and Hispanic women and White women were greater than 3 percentage points. Black women were less likely than White women to have had their BMIs documented. The difference between Black women and White women was greater than 3 percentage points.
- In the 2015 data, API and Hispanic men were more likely than White men to have had their BMIs documented. The differences between API and Hispanic men and White men were greater than 3 percentage points. Black men were less likely than White men to have had their BMIs documented. The difference between Black men and White men was greater than 3 percentage points.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees age 18 and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for 6 months after discharge, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

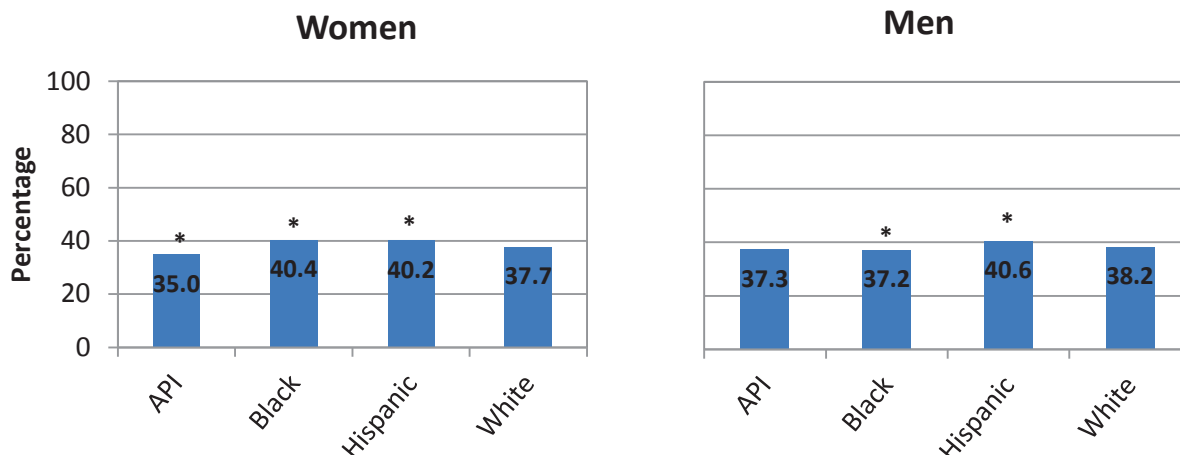
### Disparities

- In the 2015 data, Black and Hispanic women who were hospitalized for a heart attack were less likely than White women who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points. API women were as likely as White women to have received persistent beta-blocker treatment.
- In the 2015 data, Black and Hispanic men who were hospitalized for a heart attack were less likely than White men who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The differences between Black and Hispanic men and White men were greater than 3 percentage points. API men were as likely as White men to have received persistent beta-blocker treatment.



## Clinical Care: Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)

Percentage of Medicare enrollees age 40 or older with a new diagnosis of COPD or newly active COPD who received a spirometry test to confirm the diagnosis, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

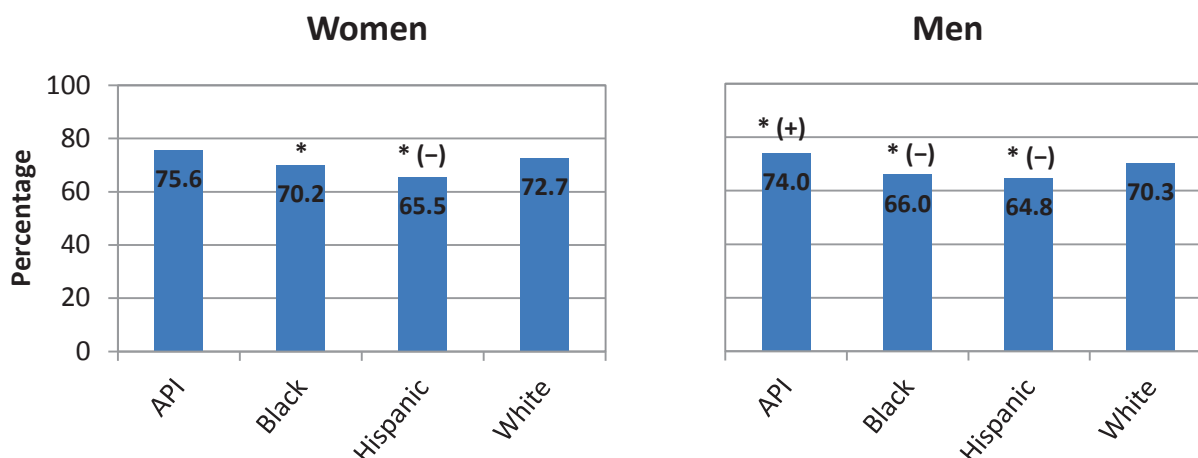
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, Black and Hispanic women with a new diagnosis of COPD or newly active COPD were more likely than White women to have received a spirometry test to confirm the diagnosis. In contrast, API women with a new diagnosis of COPD or newly active COPD were less likely than White women to have received a spirometry test to confirm the diagnosis. The differences between Black, Hispanic, and API women and White women were less than 3 percentage points.
- In the 2015 data, Black men with a new diagnosis of COPD or newly active COPD were less likely than White men to have received a spirometry test to confirm the diagnosis. In contrast, Hispanic men with a new diagnosis of COPD or newly active COPD were more likely than White men to have received a spirometry test to confirm the diagnosis. The differences between Black and Hispanic men and White men were less than 3 percentage points. API men with a new diagnosis of COPD or newly active COPD were as likely as White men to have received a spirometry test to confirm the diagnosis.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation— Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees age 40 and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

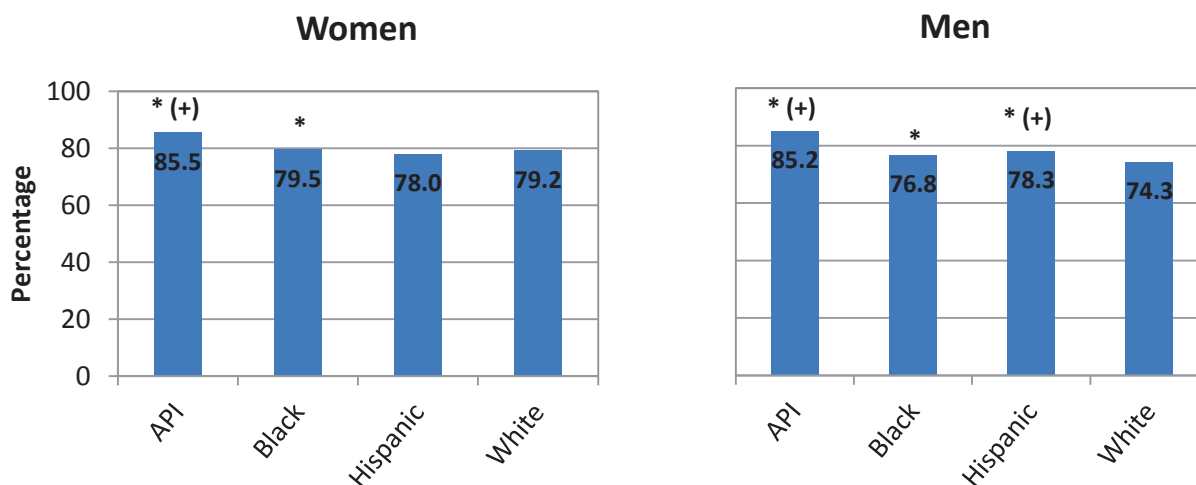
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, Black and Hispanic women who experienced a COPD exacerbation were less likely than White women to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Black women and White women was less than 3 percentage points. The difference between Hispanic women and White women was greater than 3 percentage points. API women who experienced a COPD exacerbation were as likely as White women to have been dispensed a systemic corticosteroid within 14 days of the event.
- In the 2015 data, API men who experienced a COPD exacerbation were more likely than White men to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between API men and White men was greater than 3 percentage points. Black and Hispanic men who experienced a COPD exacerbation were less likely than White men to have been dispensed a systemic corticosteroid within 14 days of the event. The differences between Black and Hispanic men and White men were greater than 3 percentage points.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation— Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees 40 years of age and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

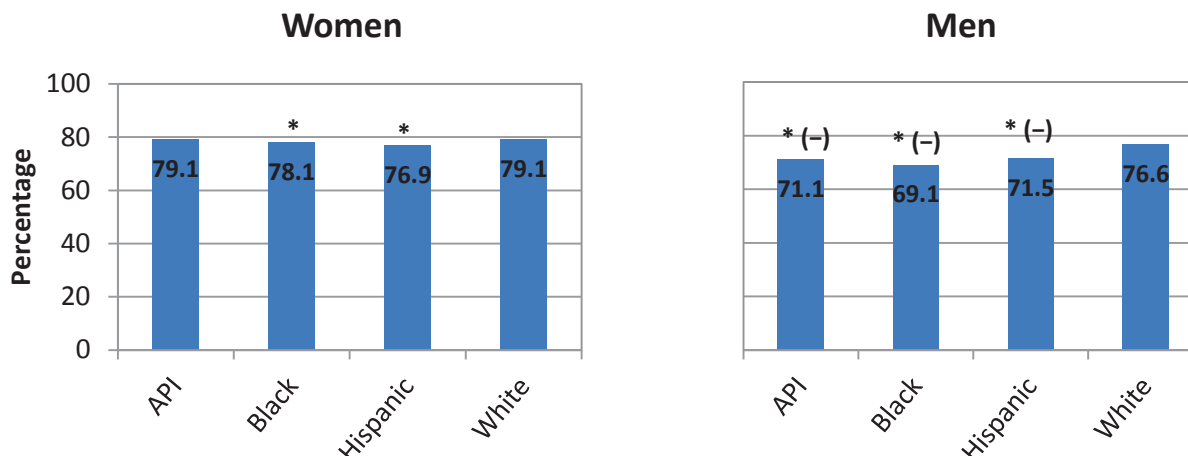
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Black women who experienced a COPD exacerbation were more likely than White women to have been dispensed a bronchodilator within 30 days of the event. The difference between API women and White women was greater than 3 percentage points. The difference between Black women and White women was less than 3 percentage points. Hispanic women who experienced a COPD exacerbation were as likely as White women to have been dispensed a bronchodilator within 30 days of the event.
- In the 2015 data, API, Black, and Hispanic men who experienced a COPD exacerbation were more likely than White men to have been dispensed a bronchodilator within 30 days of the event. The difference between API men and White men was greater than 3 percentage points, as was the difference between Hispanic men and White men. The difference between Black men and White men was less than 3 percentage points.

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least 1 ambulatory prescription for a disease-modifying antirheumatic drug (DMARD), by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

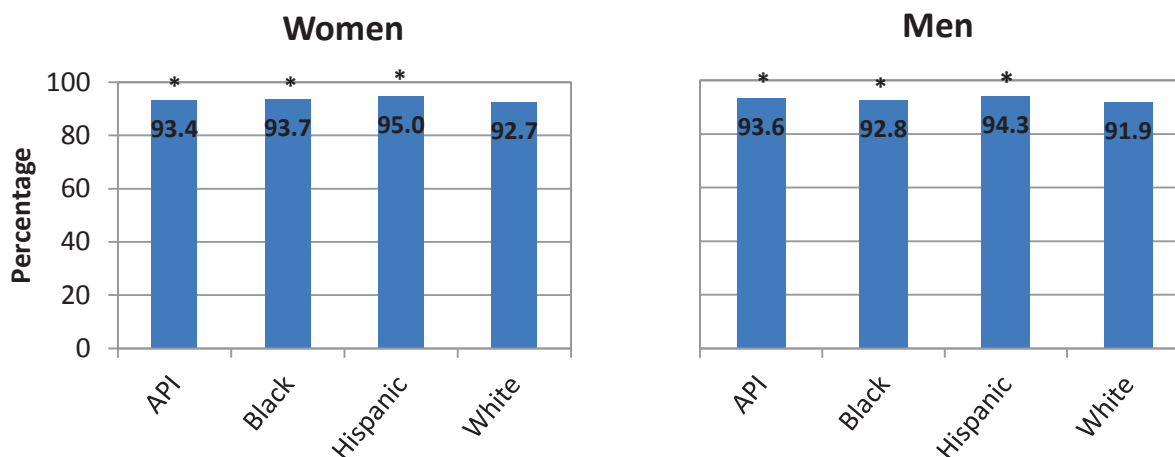
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, Black and Hispanic women who were diagnosed with rheumatic arthritis were less likely than White women who were diagnosed with rheumatic arthritis to have been dispensed at least 1 DMARD. The differences between Black and Hispanic women and White women were less than 3 percentage points. API women were as likely as White women to have been dispensed at least 1 DMARD.
- In the 2015 data, API, Black, and Hispanic men who were diagnosed with rheumatic arthritis were less likely than White men who were diagnosed with rheumatic arthritis to have been dispensed at least 1 DMARD. The difference between each of these groups of men and White men was greater than 3 percentage points.

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees age 18 and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least 1 therapeutic monitoring event for the therapeutic agent during the year, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

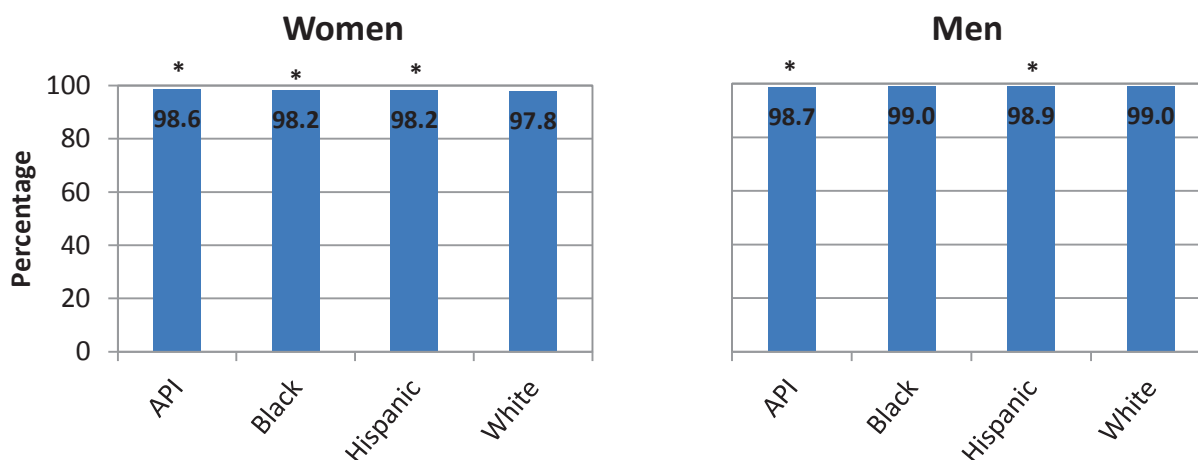
### Disparities

- In the 2015 data, API, Black, and Hispanic women were more likely than White women to have had at least 1 appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The differences between API, Black, and Hispanic women and White women were less than 3 percentage points.
- In the 2015 data, API, Black, and Hispanic men were more likely than White men to have had at least 1 appropriate follow-up visit during the year to monitor their use of a higher-risk medication. The differences between API, Black, and Hispanic men and White men were less than 3 percentage points.

<sup>†</sup> This measure is limited to those who had a prescription to 1 or more of the following drugs for 6 months or longer: angiotensin converting enzyme (ACE) inhibitors, angiotensin receptor blockers (ARBs), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees age 65 and older who were not prescribed a high-risk medication, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

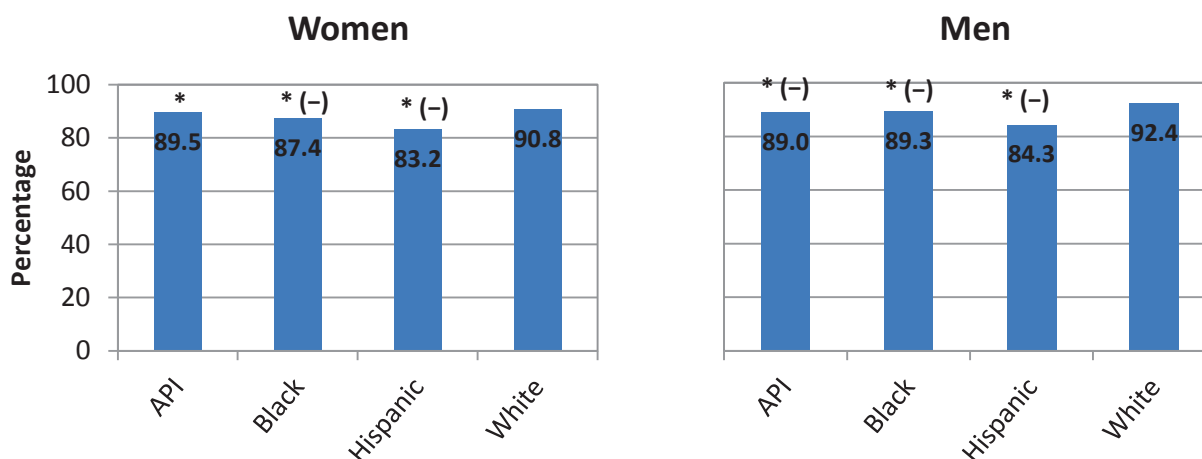
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- Long-term use of high-risk medication should be avoided for the elderly. In the 2015 data, it was observed that this standard of care was met more often for elderly API, Black, and Hispanic women than for elderly White women. The differences between API, Black, and Hispanic women and White women were less than 3 percentage points.
- In the 2015 data, it was observed that this standard of care was met less often for elderly API and Hispanic men than for elderly White men. The differences between API and Hispanic men and White men was less than 3 percentage points. This standard of care was met as often for elderly Black men as it was for elderly White men.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees age 65 and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

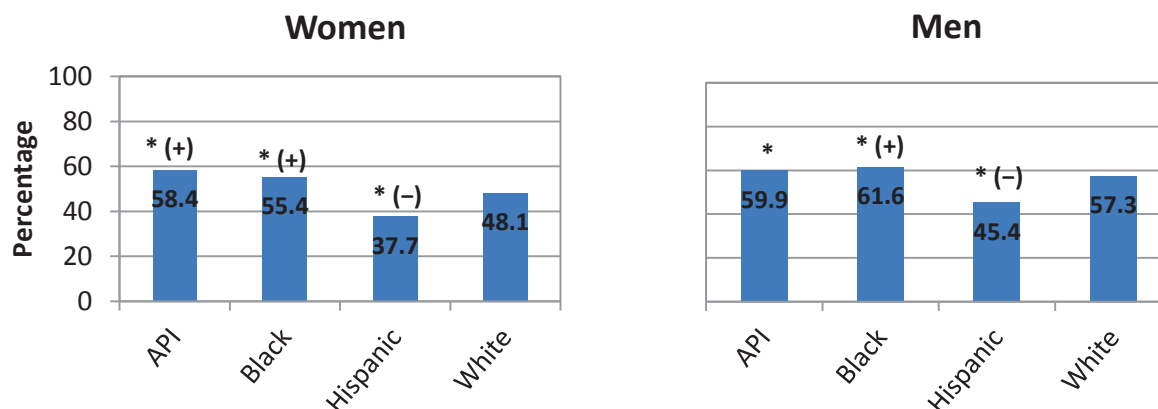
### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with chronic renal failure. In the 2015 data, it was observed that this standard of care was met less often for elderly API, Black, and Hispanic women with chronic renal failure than for elderly White women with chronic renal failure. The difference between API women and White women was less than 3 percentage points. The difference between Black women and White women was greater than 3 percentage points, as was the difference between Hispanic women and White women.
- In the 2015 data, it was observed that this standard of care was met less often for elderly API, Black, and Hispanic men with chronic renal failure than for elderly White men with chronic renal failure. The difference between each of these groups of men and White men was greater than 3 percentage points.

<sup>†</sup> This includes cyclo-oxygenase-2 (COX-2) selective nonsteroidal anti-inflammatory drugs (NSAIDs) and nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees age 65 and older with dementia who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

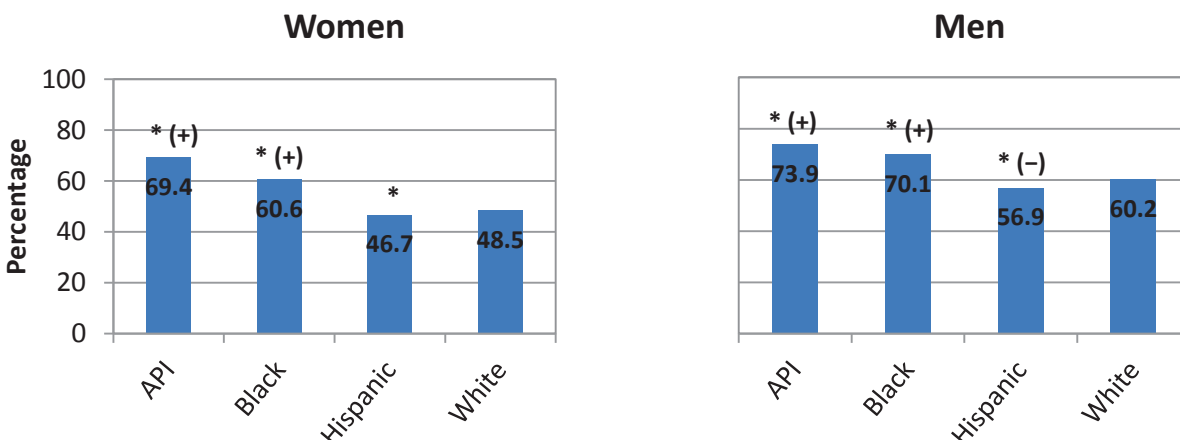
- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with dementia. In the 2015 data, it was observed that this standard of care was met more often for elderly API and Black women with dementia than for elderly White women with dementia. The differences between API and Black women and White women were greater than 3 percentage points. The standard of care was met less often for elderly Hispanic women with dementia than for elderly White women with dementia. The difference between elderly Hispanic women and elderly White women was greater than 3 percentage points.
- In the 2015 data, it was observed that the standard of care was met more often for elderly API and Black men with dementia than for elderly White men with dementia. The difference between elderly API men and elderly White men was less than 3 percentage points. The difference between elderly Black men and White men was greater than 3 percentage points. The standard of care was met less often for elderly Hispanic men with dementia than for elderly White men with dementia. The difference between elderly Hispanic men and elderly White men was greater than 3 percentage points.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, and anticholinergic agents.



## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees age 65 and older with a history of falls who were not dispensed a prescription for a potentially harmful medication,<sup>†</sup> by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For differences between Whites and racial/ethnic minorities of the same gender that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

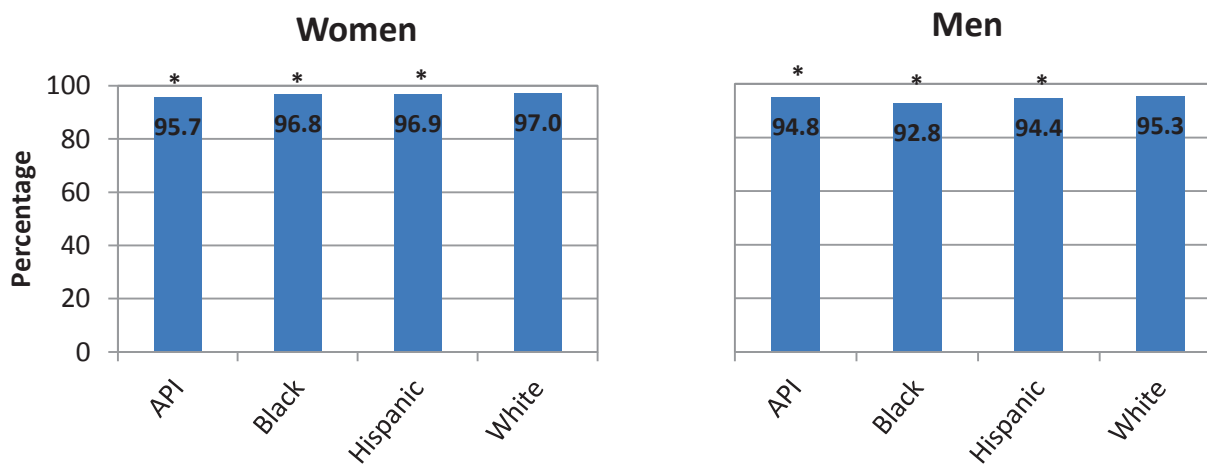
### Disparities

- Potentially harmful medication<sup>†</sup> should be avoided among elderly adults with a history of falls. In the 2015 data, it was observed that this standard of care was met more often for elderly API and Black women with a history of falls than for elderly White women with a history of falls. The differences between API and Black women and White women were greater than 3 percentage points. This standard of care was met less often for elderly Hispanic women with a history of falls than for elderly White women with a history of falls. The difference between elderly Hispanic women and elderly White women was less than 3 percentage points.
- In the 2015 data, it was observed that this standard of care was met more often for elderly API and Black men with a history of falls than for elderly White men with a history of falls. The differences between API and Black men and White men were greater than 3 percentage points. This standard of care was met less often for elderly Hispanic men with a history of falls than for elderly White men with a history of falls. The difference between elderly Hispanic men and elderly White men was greater than 3 percentage points.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin reuptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, and tricyclic antidepressants.

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees age 65 and older who had an ambulatory or preventive care visit, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

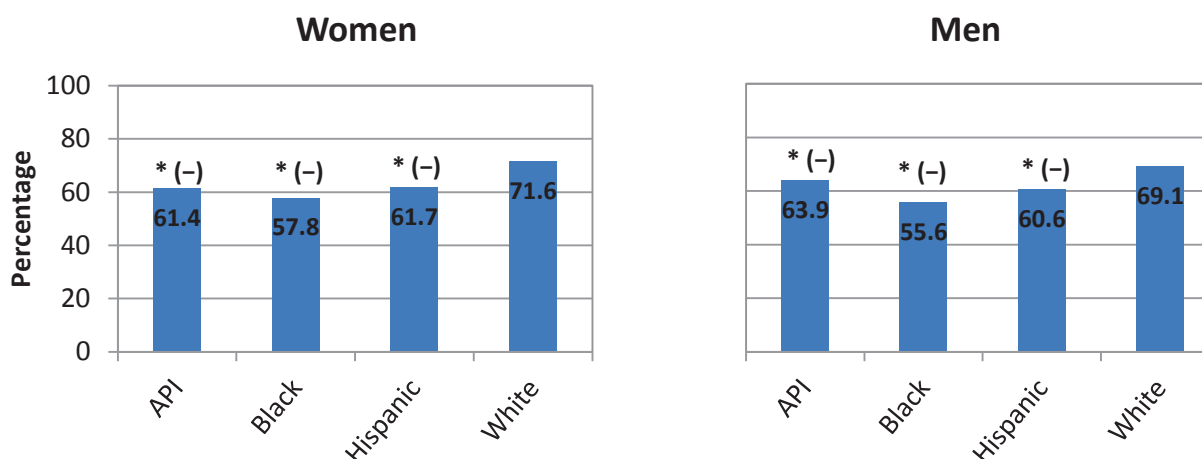
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API, Black, and Hispanic women were less likely than White women to have had an ambulatory or preventive care visit. The differences between API, Black, and Hispanic women and White women were less than 3 percentage points.
- In the 2015 data, API, Black, and Hispanic men were less likely than White men to have had an ambulatory or preventive care visit. The differences between API, Black, and Hispanic men and White men were less than 3 percentage points.

## Clinical Care: Antidepressant Medication Management— Acute-Phase Treatment

Percentage of Medicare enrollees age 18 and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days,  
by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.

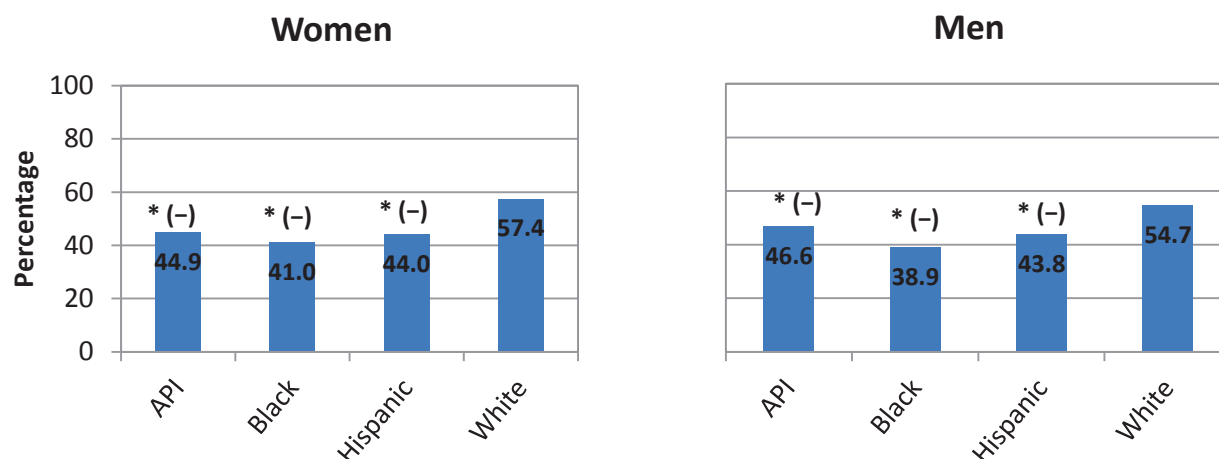
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The differences between API, Black, and Hispanic women and White women were greater than 3 percentage points.
- In the 2015 data, API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The differences between API, Black, and Hispanic men and White men were greater than 3 percentage points.

## Clinical Care: Antidepressant Medication Management— Continuation-Phase Treatment

Percentage of Medicare enrollees age 18 and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

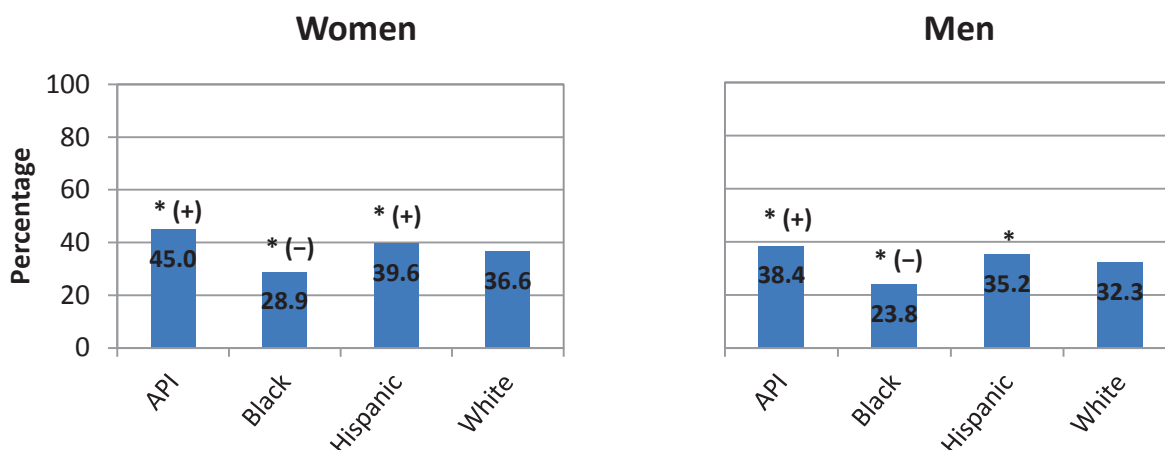
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API, Black, and Hispanic women who were diagnosed with a new episode of major depression were less likely than White women who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The differences between API, Black, and Hispanic women and White women were greater than 3 percentage points.
- In the 2015 data, API, Black, and Hispanic men who were diagnosed with a new episode of major depression were less likely than White men who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The differences between API, Black, and Hispanic men and White men were greater than 3 percentage points.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees age 6 and older† who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 7 days of discharge, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

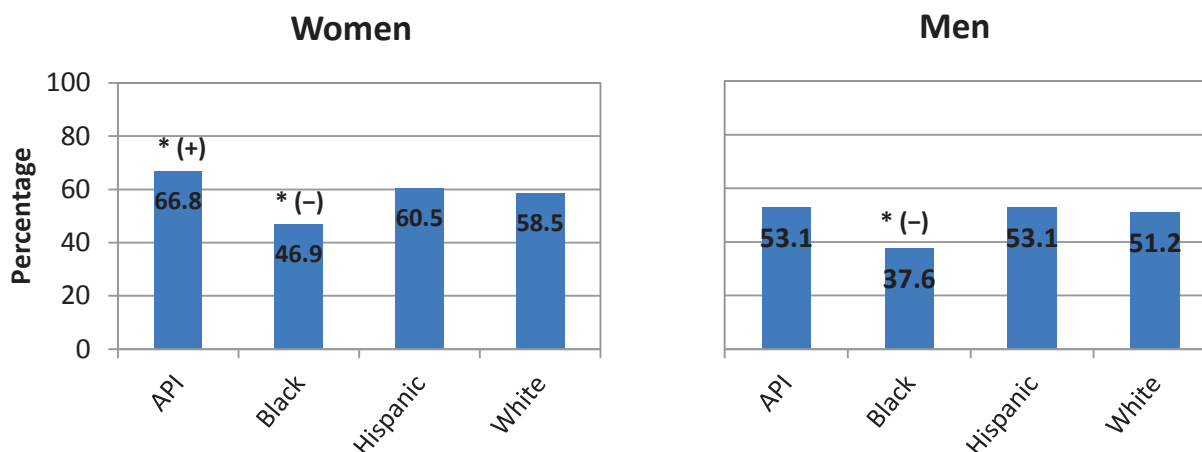
- In the 2015 data, API and Hispanic women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 7 days of discharge. In contrast, Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 7 days of discharge. The differences between API, Black, and Hispanic women and White women were greater than 3 percentage points.
- In the 2015 data, API and Hispanic men hospitalized for a mental health disorder were more likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 7 days of discharge. The difference between API and White men was greater than 3 percentage points. The difference between Hispanic and White men was less than 3 percentage points. Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had a follow-up visit with

a mental health practitioner within 7 days of discharge. The difference between Black and White men was greater than 3 percentage points.

† Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.

## Clinical Care: Follow-Up Visit After Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees age 6 and older† who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter, or partial hospitalization with a mental health practitioner within 30 days of discharge, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API women hospitalized for a mental health disorder were more likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between API women and White women was greater than 3 percentage points. Black women hospitalized for a mental health disorder were less likely than White women hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between Black women and White women was greater than 3 percentage points. Hispanic women were as likely as White women to have had a follow-up visit with a mental health practitioner within 30 days of discharge.
- In the 2015 data, Black men hospitalized for a mental health disorder were less likely than White men hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between Black men and White men was

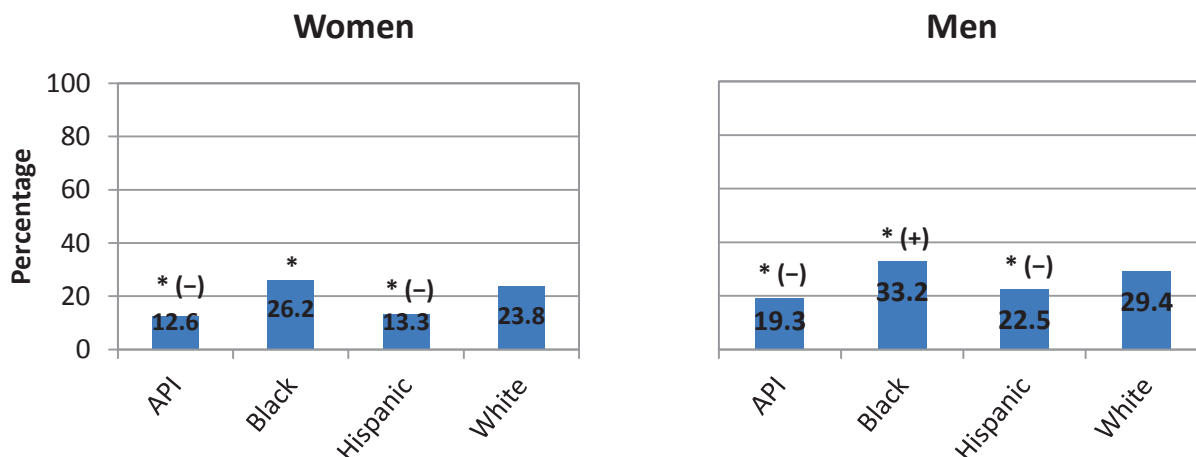
greater than 3 percentage points. API and Hispanic men were as likely as White men to have had a follow-up visit with a mental health practitioner within 30 days of discharge.

† Although the lower-bound age cutoff for this HEDIS measure is 6 years old, the data used in this report are limited to adults.



## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiate<sup>†</sup> treatment within 14 days of the diagnosis, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

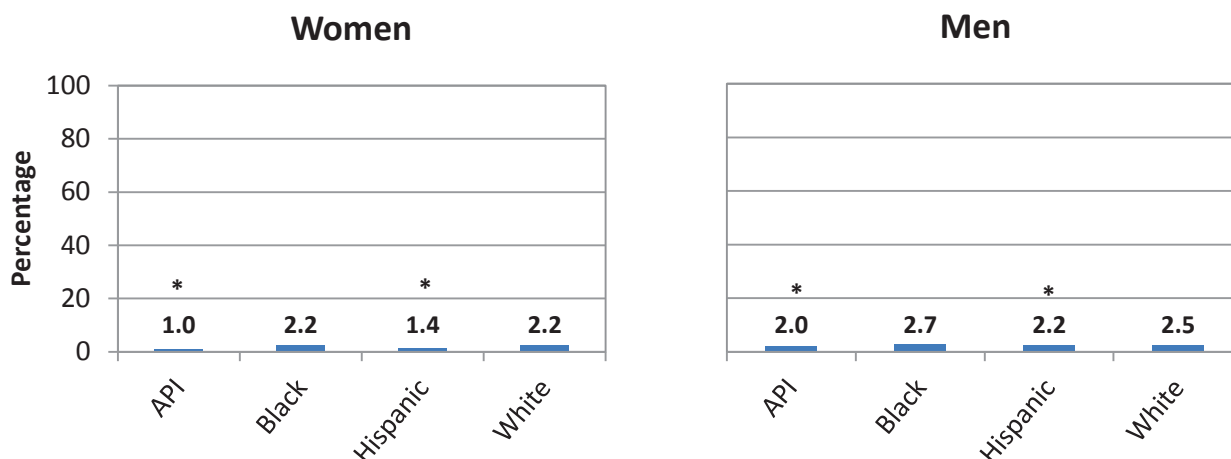
### Disparities

- In the 2015 data, API and Hispanic women with a new episode of AOD dependence were less likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. The difference between each of these groups of women and White women was greater than 3 percentage points. Black women with a new episode of AOD dependence were more likely than White women with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. The difference between Black women and White women was less than 3 percentage points.
- In the 2015 data, API and Hispanic men with a new episode of AOD dependence were less likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of diagnosis. The differences between API and Hispanic men and White men were greater than 3 percentage points. Black men with a new episode of AOD dependence were more likely than White men with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Black men and White men was greater than 3 percentage points.

<sup>†</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter, or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiated treatment and who had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit, by race/ethnicity within gender, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites of the same gender ( $p < 0.05$ ).

For statistically significant differences between Whites and racial/ethnic minorities of the same gender, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group.
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites.

### Disparities

- In the 2015 data, API and Hispanic women with a new episode of AOD dependence and who initiated treatment were less likely than White women with a new episode of AOD dependence and who initiated treatment to have had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The differences between API and Hispanic women and White women were less than 3 percentage points. Black women were as likely as White women to have had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit.
- In the 2015 data, API and Hispanic men with a new episode of AOD dependence and who initiated treatment were less likely than White men with a new episode of AOD dependence and who initiated treatment to have had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The differences between API and Hispanic men and White men were less than 3 percentage points. Black men were as likely as White men to have had 2 or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

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## Appendix. Data Sources and Methods

### *The Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) Surveys*

Medicare CAHPS surveys are mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with states serving as strata for beneficiaries with fee-for-service (FFS) coverage who are not enrolled in a prescription drug plan and with contracts serving as strata for all others. The 2015 CAHPS survey attempted to contact 750,602 Medicare beneficiaries and received responses from 291,922, a 39-percent response rate. The 2015 surveys represent all FFS beneficiaries and Medicare Advantage (MA) beneficiaries from the 531 MA contracts with at least 600 eligible enrollees.

### *The Healthcare Effectiveness Data and Information Set (HEDIS)*

HEDIS consists of 81 clinical care measures across five domains (National Committee for Quality Assurance [NCQA], 2016). These domains include effectiveness of care, access/availability of care, experience of care, utilization and relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of the NCQA. Although CAHPS data are collected only through surveys, HEDIS data are gathered both through surveys and through medical charts and insurance claims for hospitalizations, medical office visits, and procedures (Agency for Healthcare Research and Quality, 2015). In selecting the 24 HEDIS measures to include in this report, we excluded measures that were gender-specific (e.g., breast cancer screening), underwent a recent change in specification, were similar to reported measures preferred by Centers for Medicare and Medicaid Services (CMS), or were designated as unsuitable for this application by CMS experts.

### *Information on Race/Ethnicity*

The 2015 CAHPS survey asked beneficiaries, “Are you of Hispanic or Latino origin or descent?” The response options were: “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asked, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into one of seven mutually exclusive categories: Hispanic, multiracial, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander (API), Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: Those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their responses.
- Respondents without data regarding race/ethnicity were classified as unknown.
- We do not include estimates for the multiracial and unknown subgroups in this report.

- We also do not include estimates for the AI/AN subgroup because there were too few AI/AN respondents to permit making accurate comparisons between this subgroup and Whites when looking at women and men separately.

HEDIS data, unlike CAHPS data, do not contain the patient's self-reported race/ethnicity. Therefore, we imputed race/ethnicity for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Martino et al., 2013). In 2015, there were 513 MA contracts that supplied the 17,878,452 HEDIS-measure records used.

#### *Information on Gender*

Gender is self-reported by Medicare beneficiaries on the CAHPS surveys. For HEDIS, information on gender is gathered from administrative records.

#### *Analytic Approach*

All analyses were run separately for women and men beneficiaries.

The CAHPS measures presented in this report are composite measures that summarize, through averaging, the answers to two or more related CAHPS survey questions, or items. The annual flu vaccine measure, which is included in the CAHPS survey, is considered to be a HEDIS measure. This is a single-item measure rather than a composite.

CAHPS estimates are from case-mix adjusted linear regression models that contained health contract intercepts, racial/ethnic indicators, and the following case-mix adjustors: age, education, self-rated health and mental health, dual eligibility/low-income subsidy, and proxy status. No adjustment was made for survey language. Race/ethnicity was coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White as the (omitted) reference group.

Predicted probabilities of race/ethnicity were used as weights to develop HEDIS-measure estimates for each racial/ethnic group (Elliott et al., 2009). None of the HEDIS measures reported is case-mix adjusted.

For each gender, statistical significance tests were used to compare the model-estimated scores for each racial/ethnic minority group with the score for Whites. A difference in scores is denoted as statistically significant if there is less than a 5-percent chance that the difference could have resulted because of sampling error alone. Differences that are statistically significant and larger than 3 points on a 0–100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant. That is, in the charts that present national data on racial/ethnic differences in patient experience (CAHPS) and clinical care (HEDIS) among women and men, differences that are not statistically significant or are statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a 3-point increase in some CAHPS measures has been shown to be associated with a 30-percent reduction in disenrollment from health plans (Lied et al., 2003).

## References

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## **Frequently Asked Questions Reporting of National Medicare Advantage Quality Scores by Race, Ethnicity and Gender**

### **1. What is CMS announcing today?**

CMS is announcing the release of two national level reports detailing the health care experiences and quality of care received by Medicare Advantage (MA) enrollees. One report presents data stratified by gender and the other presents data stratified by race and ethnicity within gender groups. These reports, which use the two most current years of pooled data from 2014 and 2015, are companion pieces to the [November 2016](#) release of Medicare quality measures stratified by race and ethnicity. The release of these reports is timed to coincide with Minority Health Month in April. Each year at this time CMS plans to make additional reports available to the general public on the [CMS OMH](#) website.

### **2. Why is CMS displaying this information?**

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes ([2015 National Healthcare Quality and Disparities Report](#)). To begin to comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Additionally, the IMPACT Act of 2014 requires the HHS Office of the Assistant Secretary for Planning and Evaluation (ASPE) to examine the differential effect of a number of demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures.

### **3. What do these data represent?**

The data presented in one report indicate overall national differences in the care that is delivered to men and women MA enrollees overall. The data presented in the other report indicate overall national differences in care that is delivered to men and women MA enrollees who identify as Asian or Pacific Islander, Black/African American, Hispanic, or White.

### **4. How can MA contracts use this information to improve performance?**

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures aggregated at the national level, stratified by race and ethnicity within gender groups and by gender among MA enrollees. This information may be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally and linguistically appropriate quality improvement interventions and strategies.

### **5. Are these results included in the Part C and D Star Ratings Program?**

NO. This effort is entirely separate from the Part C and D Star Ratings program. These scores are based on national level, pooled MA data and are not plan or contract specific. They are intended to be used to support health plan quality improvement and accountability but do not affect Star Ratings.

**6. Do the data presented in this release suggest that CMS' socio-economic status (SES) adjustment of Part C and D Star Ratings should have been larger or whether CMS should NOT have adjusted for SES?**

Following standard scoring practices, no adjustment is made to the HEDIS measures; CAHPS measures are case-mix adjusted for low income, dual eligibility, and other factors. These analyses examined gender, racial and ethnic differences in HEDIS and CAHPS scores overall. The HEDIS analyses did not include any measure of SES. As such these analyses do not directly inform the adjustment of HEDIS measures for SES. The proportion of Medicare beneficiaries with low SES does differ across racial and ethnic groups, as well as across other demographic subgroups. The descriptive data in this release do not suggest that adjustment of Part C and D Star Ratings for SES is inappropriate. Additionally, research conducted by the HHS ASPE found that adding indicators of race and ethnicity to SES adjustment models for HEDIS measures used in the Star Ratings had little effect on the coefficients used for adjustment by SES.

**7. How is gender reported?**

Gender is self-reported by Medicare beneficiaries on the CAHPS survey. For HEDIS, information on gender is gathered from administrative records.

**8. How is race and ethnicity reported? Which racial and ethnic groups are included in the national disparities reports?**

CAHPS measures are based on respondent self-reported race and ethnicity. For HEDIS, information on race and ethnicity is gathered from administrative records. For both the HEDIS and CAHPS measures, data are provided for women and men in four racial/ethnic groups: (1) Asians or Pacific Islanders (includes Native Hawaiians), (2) Blacks, (3) Hispanics, and (4) Whites. Data are not presented for American Indians or Alaska Natives due to insufficient sample size to produce reliable estimates. Limitations in CMS administrative data as well as in the reporting of race and ethnicity data by health plans precluded us from reporting HEDIS measures for additional groups.

**9. Why are there two separate national disparities reports? How are the two files different?**

Both reports contain national data for care delivered during 2014 and 2015. The reports present national estimates for quality measures stratified by race and ethnicity within gender groups or by gender. The report presenting racial and ethnic group comparisons separately by gender includes information about the care given to members in each of four racial and ethnic groups: Asian/Pacific Islanders, Blacks/African Americans, Hispanics, and Whites. For the report showing gender comparisons in care, quality scores for national level MA data are shown for both women and men.

**10. If the score for a particular racial or ethnic minority group is lower than the score for Whites, what does that mean?**

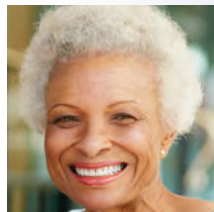
At the national level, for patient experience measures (not including the flu immunization measure, which is a clinical care measure included in the Medicare CAHPS Survey), a lower score for a particular racial or ethnic minority group means that members of that particular racial or ethnic minority group reported worse experiences than Whites of the same gender after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure,



are not adjusted for these other characteristics. At the national level, for clinical care measures, a lower score for a particular racial or ethnic minority group means that members of that particular racial or ethnic minority group received worse care than Whites of the same gender.



# Racial and Ethnic Disparities in Health Care in Medicare Advantage



*November 2016*

*CMS Office of Minority Health  
in collaboration with  
the RAND Corporation*

## Background and Purpose

This document presents summary information on the quality of health care received by Medicare beneficiaries, including information about their experiences as patients obtaining care. This quality of care data is presented at the national level, and is shown for different racial/ethnic groups. This information may be of interest to Medicare beneficiaries, Medicare Advantage and prescription drug plans, and others interested in better understanding beneficiaries' quality of care and how it differs across racial/ethnic groups.

The specific measures reported fall into two categories: (1) patient experience measures and (2) clinical care measures. Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get information from their drug plan about prescription drug coverage and cost. Examples of clinical care measures include whether beneficiaries received appropriate screening for colon cancer, whether beneficiaries with diabetes received a test that determines whether their blood sugar is under control, and whether beneficiaries with hypertension had their blood pressure adequately controlled. In all, this document provides data regarding eight patient experience measures and 26 clinical care measures.

The patient experience data were collected from a national survey of Medicare beneficiaries known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this document are from the 2015 Medicare CAHPS survey. The clinical care data are gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from Medicare health plans (Medicare Advantage plans) nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS). The HEDIS data reported here are for 2015.

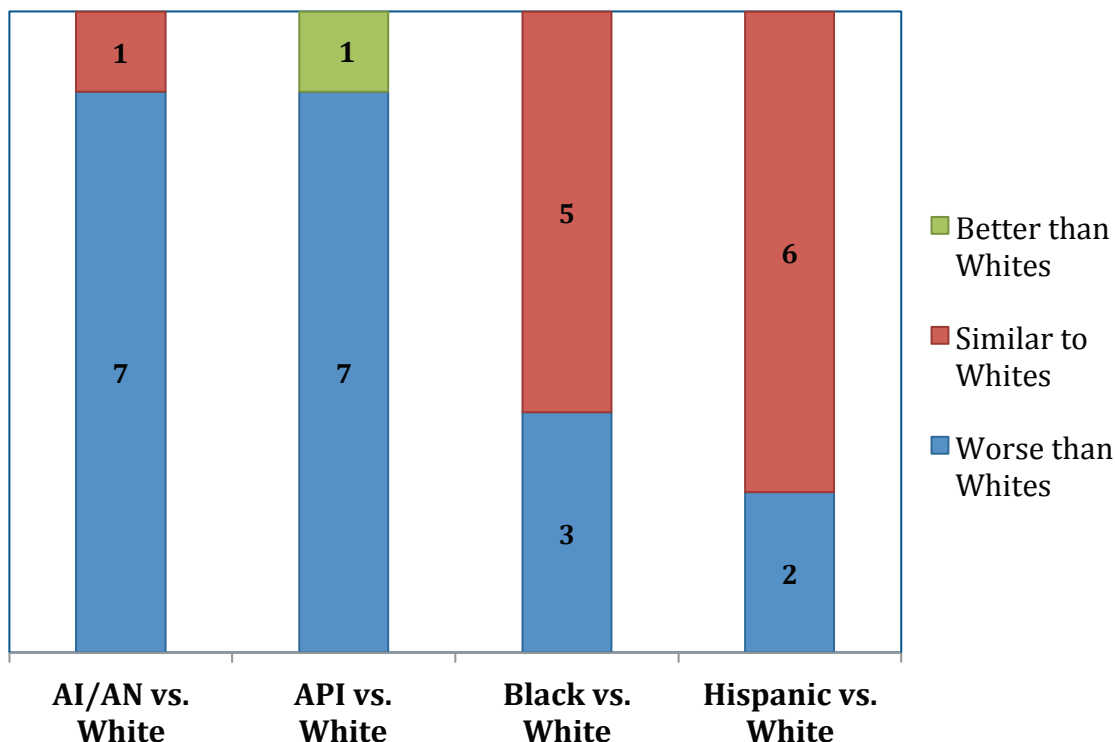
Data are reported separately for specific racial/ethnic groups because there is evidence that quality of care (as measured by both patient experience and clinical care measures) may be different for different groups. For the patient experience measures, data are provided for five racial/ethnic groups: (1) American Indians or Alaska Natives, (2) Asians or Pacific Islanders (includes Native Hawaiians), (3) Blacks, (4) Hispanics, and (5) Whites. These racial/ethnic groups were chosen because enough information was available about beneficiaries in these groups to allow for a description of the care they received. For the clinical care measures, data are given for the same racial/ethnic groups except American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine if a beneficiary is in this group.

Data for each of the patient experience/clinical care measures are presented in the form of bar charts. For each patient experience measure, a chart shows the average score for each racial/ethnic group on a 0 to 100 scale. The average score represents the percent of the best possible score for a given group for that measure. For example, if the best possible score on a measure is 4 and a given group's score on that measure is 3.5, then that group's score on a 0 to 100 scale is  $(3.5/4) \times 100 = 87.5$ . An additional stacked bar chart shows the number of patient experience measures (out of eight) for which members of each group reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. For each clinical care measure, a chart shows the percentage of beneficiaries in each group whose care met the standard called for by the specific measure (e.g., a test or treatment). An additional stacked bar chart shows the number of clinical care measures (out of 26) for which members of each group experienced care that was worse than, similar to, or better than the care experienced by Whites.

For detailed information on data sources and analytic methods, see Appendix A.

## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 8) for which members of selected groups reported experiences that are worse than, similar to, or better than the experiences reported by Whites in 2015



**Data source:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2015 Medicare Consumer Assessment of Healthcare Providers and Systems Survey.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

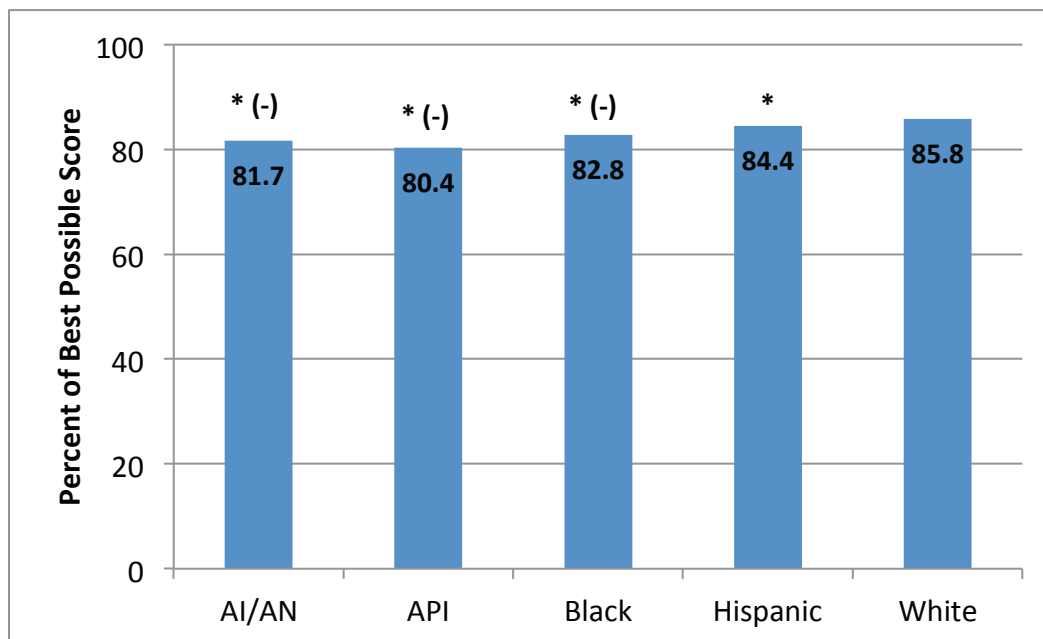
**Notes:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population had better patient experience than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 points on a 0 to 100 scale, and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar patient experiences. Differences are less than 3 points on a 0 to 100 scale. Differences may be statistically significant.
- **Worse** = Population had worse patient experience than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0 to 100 scale, and favor Whites.

**Example:** Compared with Whites, Hispanics reported worse patient experience for 2 of the 8 patient experience measures, and similar experience for 6 of the measures.

## Patient Experience: Getting Needed Care

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is for patients to get needed care, including care from specialists, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

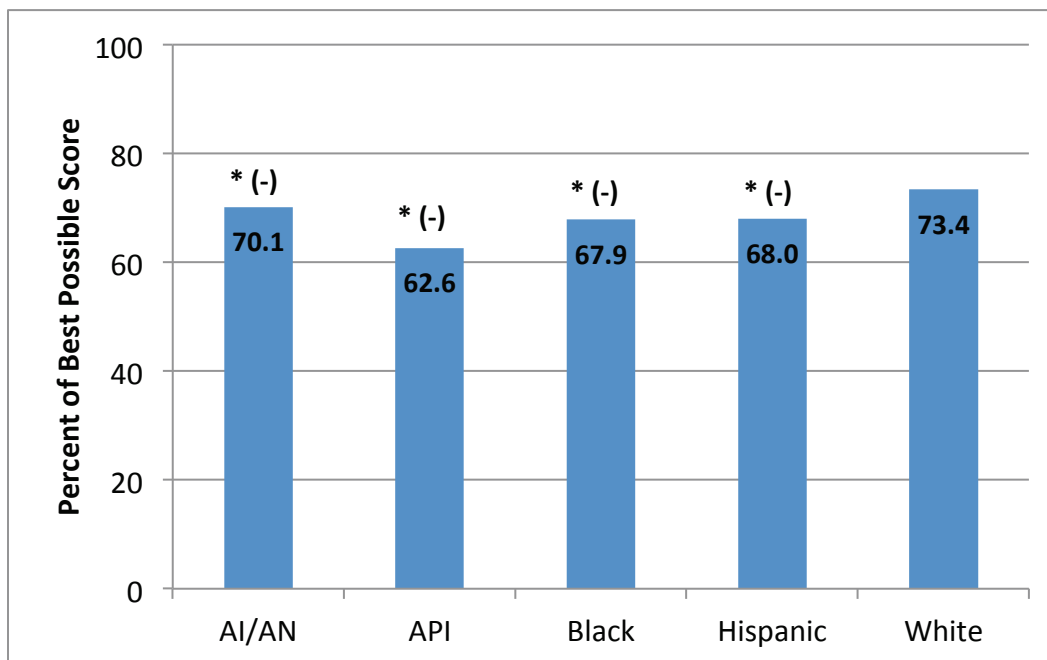
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, American Indians or Alaska Natives, Asians or Pacific Islanders, and Blacks reported that it was less easy to get needed care than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Hispanics reported that it was less easy to get needed care than Whites reported, but the difference between this group and Whites was less than 3 points on a 0 to 100 scale.

## Patient Experience: Getting Appointments and Care Quickly

Percent of the best possible score (on a 0 to 100 scale) earned on how quickly patients get appointments and care, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

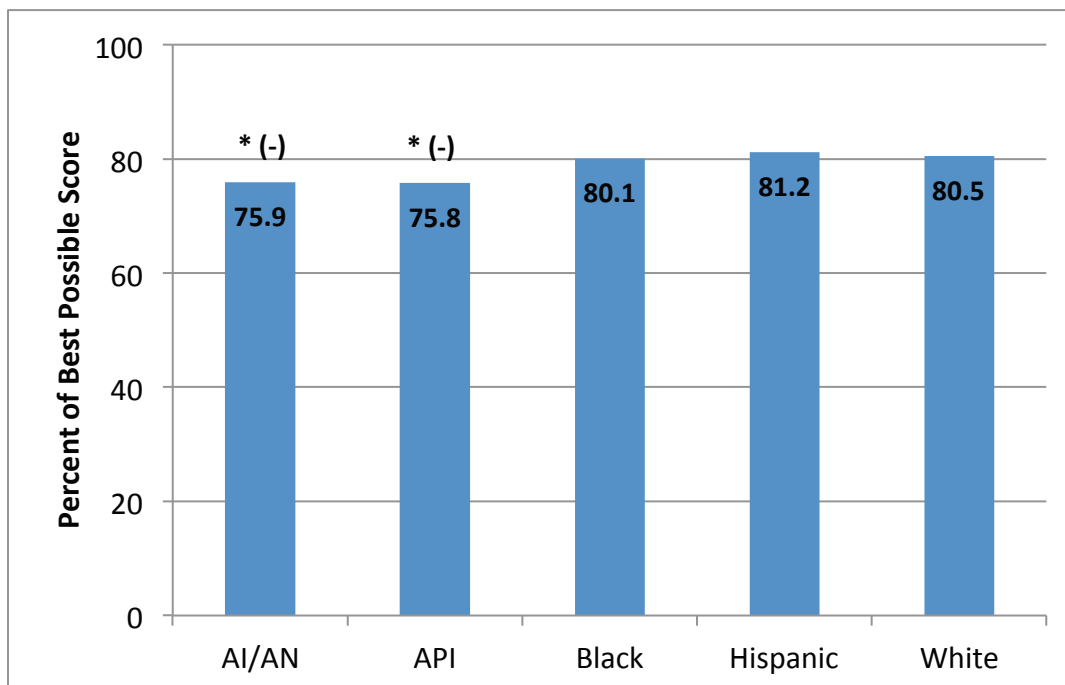
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, American Indians or Alaska Natives, Asians or Pacific Islanders, Blacks, and Hispanics reported getting appointments and care less quickly than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.

## Patient Experience: Customer Service

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is to get information and help from one's plan when needed, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

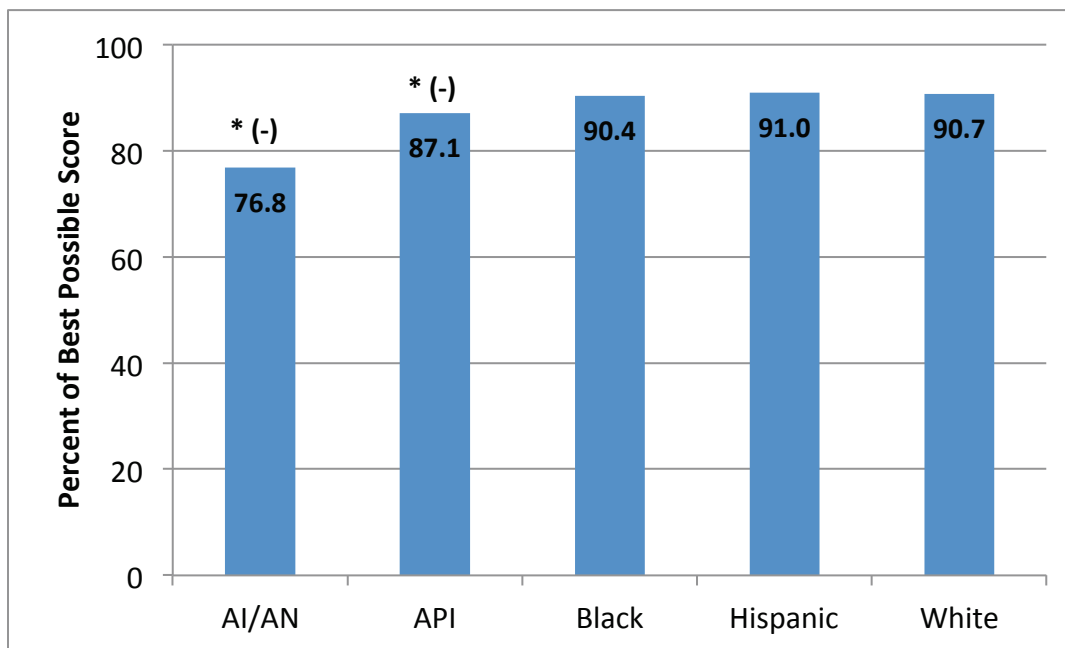
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, American Indians or Alaska Natives and Asians or Pacific Islanders reported that it was harder to get information and help from their plan when needed than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Blacks and Hispanics reported experiences with customer service that were similar to the experiences reported by Whites.

## Patient Experience: Doctors Who Communicate Well

Percent of the best possible score (on a 0 to 100 scale) earned on how well doctors communicate with patients, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

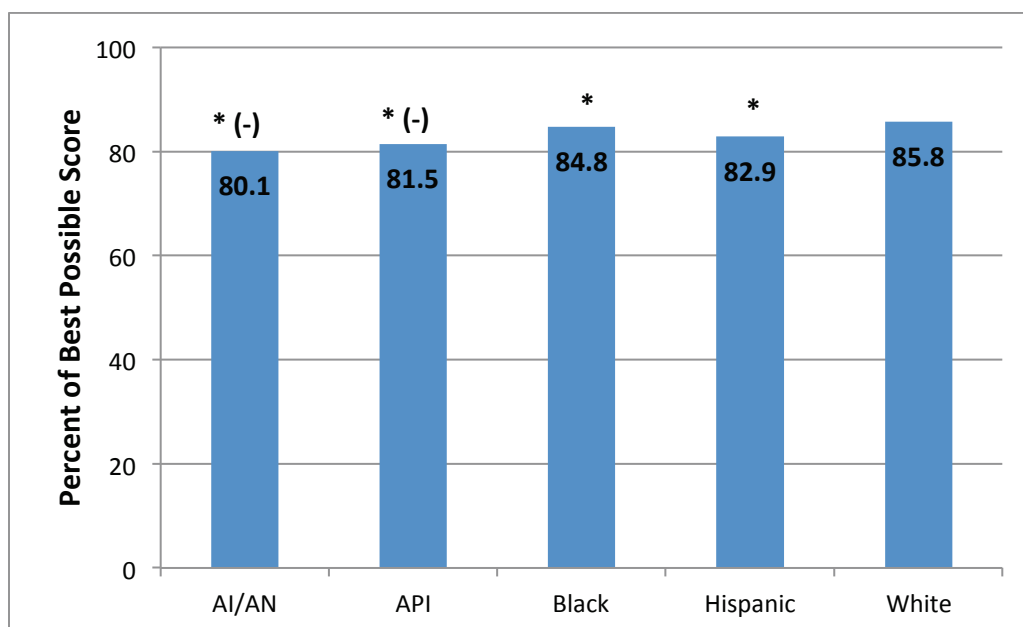
### Disparities

- In 2015, American Indians or Alaska Natives and Asians or Pacific Islanders reported worse doctor communication than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Blacks and Hispanics reported experiences with doctor communication that were similar to the experiences reported by Whites.



## Patient Experience: Care Coordination

Percent of the best possible score (on a 0 to 100 scale) earned on how well patients' care was coordinated<sup>†</sup>, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

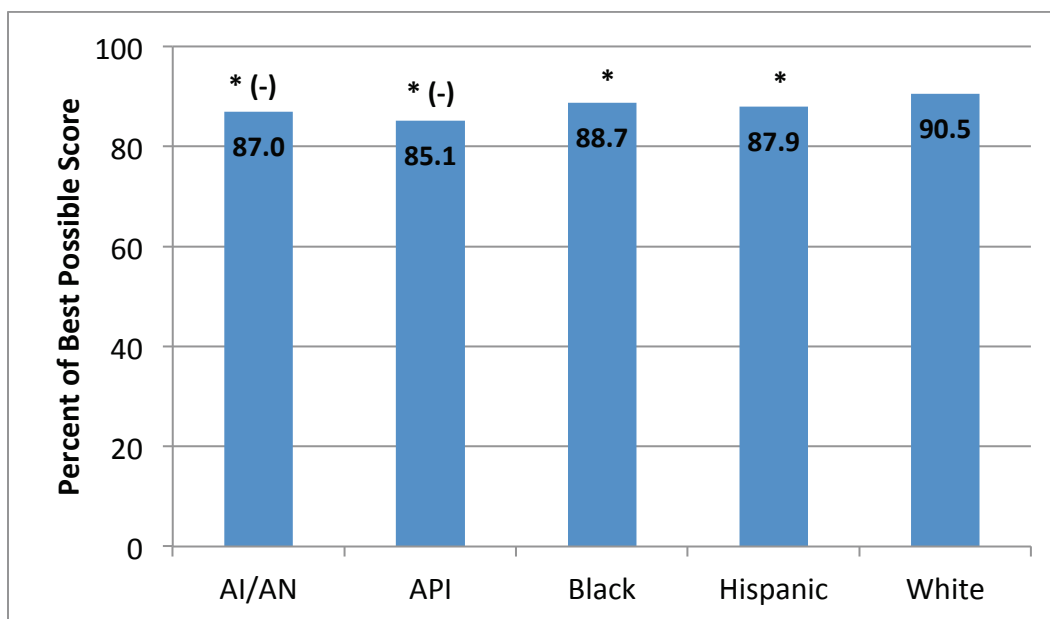
### Disparities

- In 2015, American Indians or Alaska Natives and Asians or Pacific Islanders reported worse care coordination than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Blacks and Hispanics reported worse care coordination than Whites reported, but the differences between these groups and Whites were less than 3 points on a 0 to 100 scale.

<sup>†</sup> This includes whether doctors had the records and information they needed about patients' care and how quickly patients got their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

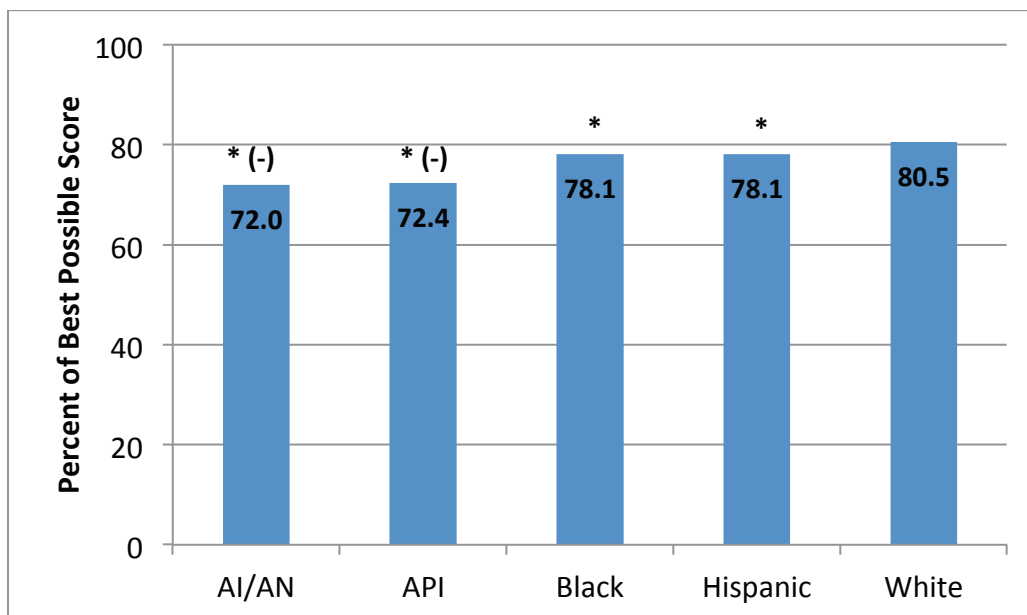
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, American Indians or Alaska Natives and Asians or Pacific Islanders reported more difficulty getting needed prescription drugs than Whites reported. The difference between each of these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Blacks and Hispanics reported more difficulty getting needed prescription drugs than Whites reported, but the differences between these groups and Whites were less than 3 points on a 0 to 100 scale.

## Patient Experience: Getting Information about Prescription Drugs

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it was for beneficiaries to get information from their plan about prescription drug coverage and cost, by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

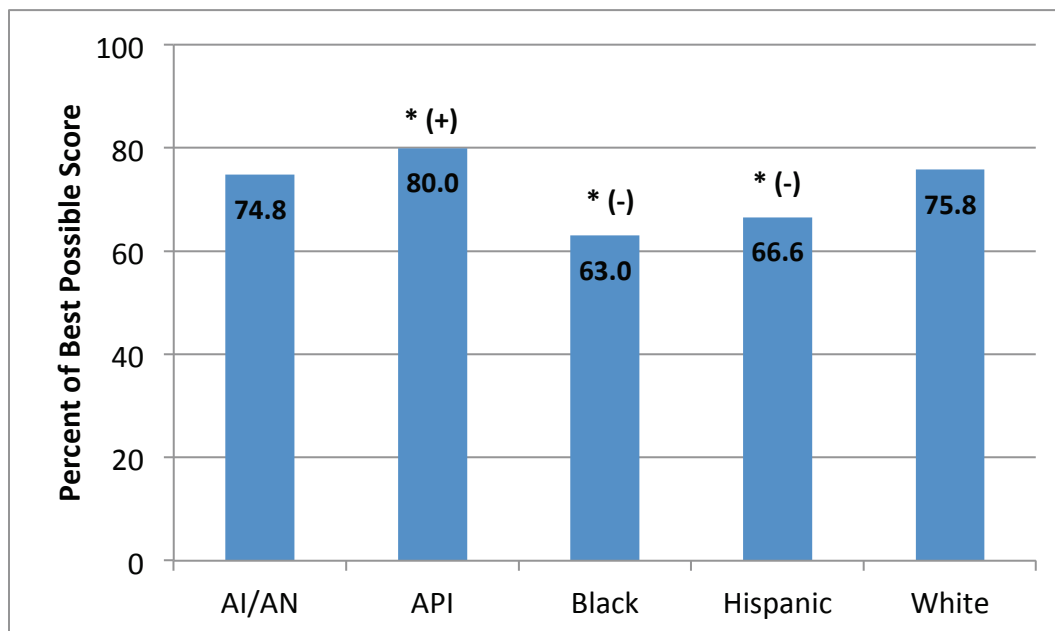
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, American Indians or Alaska Natives and Asians or Pacific Islanders reported more difficulty getting help and information about prescription drugs than Whites reported. The difference between these groups and Whites was greater than 3 points on a 0 to 100 scale.
- In 2015, Blacks and Hispanics reported more difficulty getting help and information about prescription drugs than Whites reported, but the differences between these groups and Whites were less than 3 points on a 0 to 100 scale.

## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race/ethnicity, 2015



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2015.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

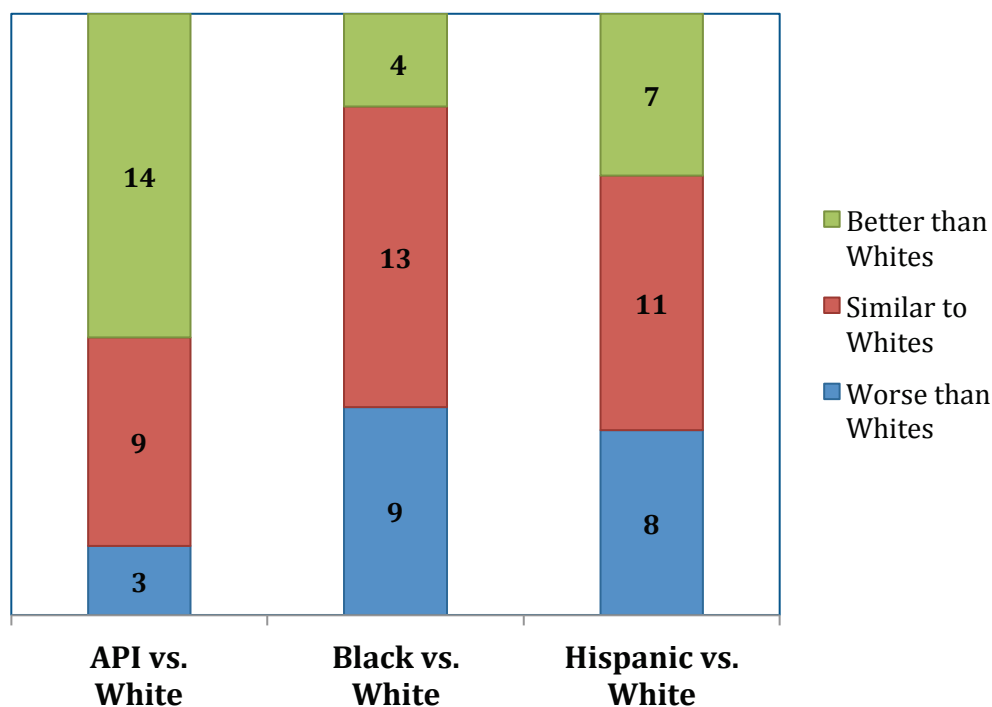
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders were more likely than Whites to have been vaccinated prior to the flu season. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2015, Blacks and Hispanics were less likely than Whites to have been vaccinated prior to the flu season. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, American Indians or Alaska Natives were as likely as Whites to have been vaccinated prior to the flu season.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 26) for which members of selected groups experienced care that is worse than, similar to, or better than the care experienced by Whites in 2015



**Data source:** Information in this chart is from clinical quality (HEDIS) data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Notes:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races. Data are not given on American Indians or Alaska Natives because the clinical care data lack information that allows us to reliably determine if a beneficiary is in this group.

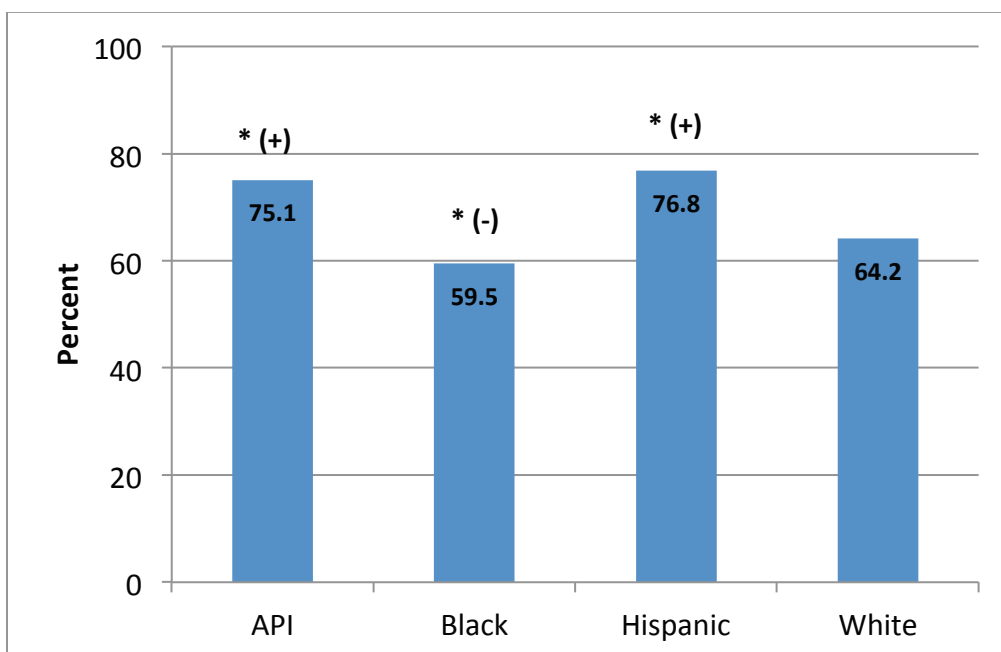
The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population had better clinical care than Whites. Differences are statistically significant ( $p < 0.05$ ), are equal to or larger than 3 percentage points, and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar clinical care. Differences are less than 3 percentage points. Differences may be statistically significant.
- **Worse** = Population had worse clinical care than Whites. Differences are statistically significant, are equal to or larger than 3 percentage points, and favor Whites.

**Example:** Compared with Whites, Hispanics had worse quality care for 8 of the 26 clinical care measures, similar quality care for 11 measures, and better quality care for 7 measures.

## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50 to 75 who had appropriate screening for colorectal cancer, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

**(+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

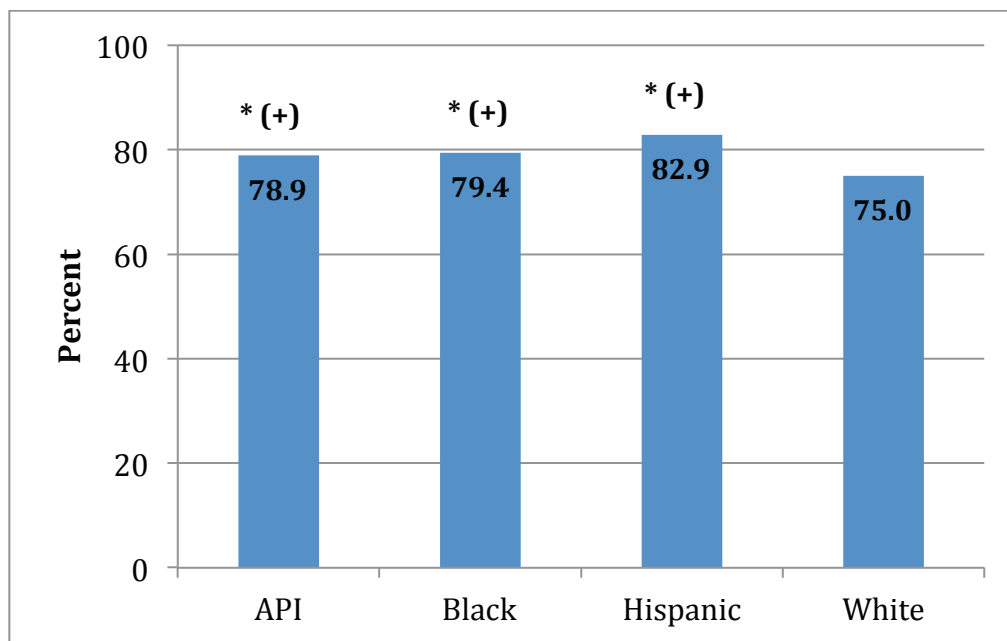
**(-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics were more likely than Whites to have been appropriately screened for colorectal cancer. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, Blacks were less likely than Whites to have been appropriately screened for colorectal cancer. The difference between Blacks and Whites was greater than 3 percentage points.

## Clinical Care: Breast Cancer Screening

Percentage of Medicare enrollees (women) aged 50 to 74 who had appropriate screening for breast cancer, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

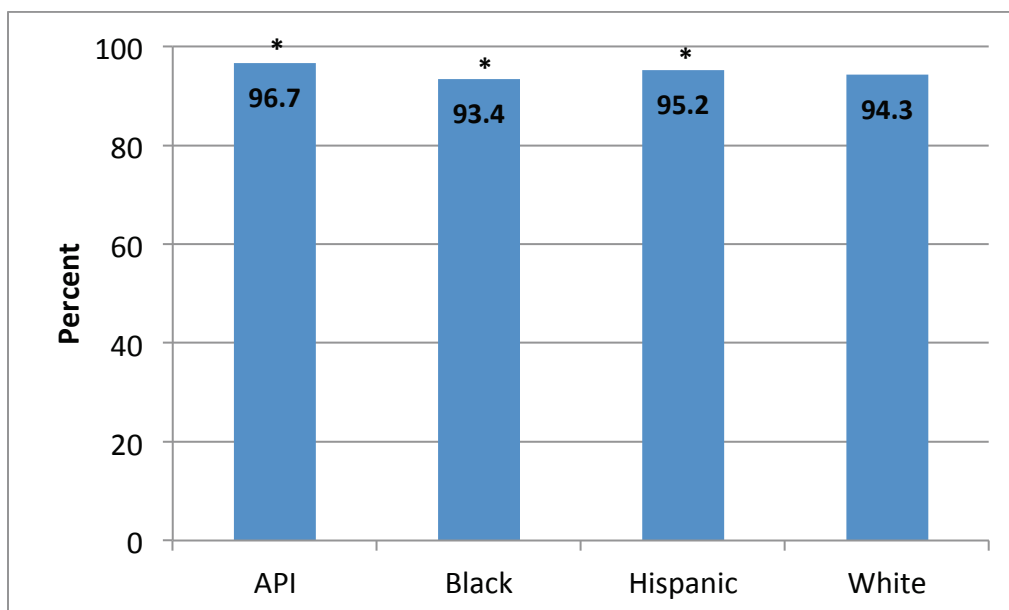
- (+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asian or Pacific Islander, Black, and Hispanic women were more likely than White women to have been appropriately screened for breast cancer. The difference between each of these groups of women and White women was greater than 3 percentage points.

## Clinical Care: Diabetes Care - Blood Sugar Testing

Percentage of Medicare enrollees aged 18 to 75 with diabetes who had one or more HbA1c tests in the past year, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

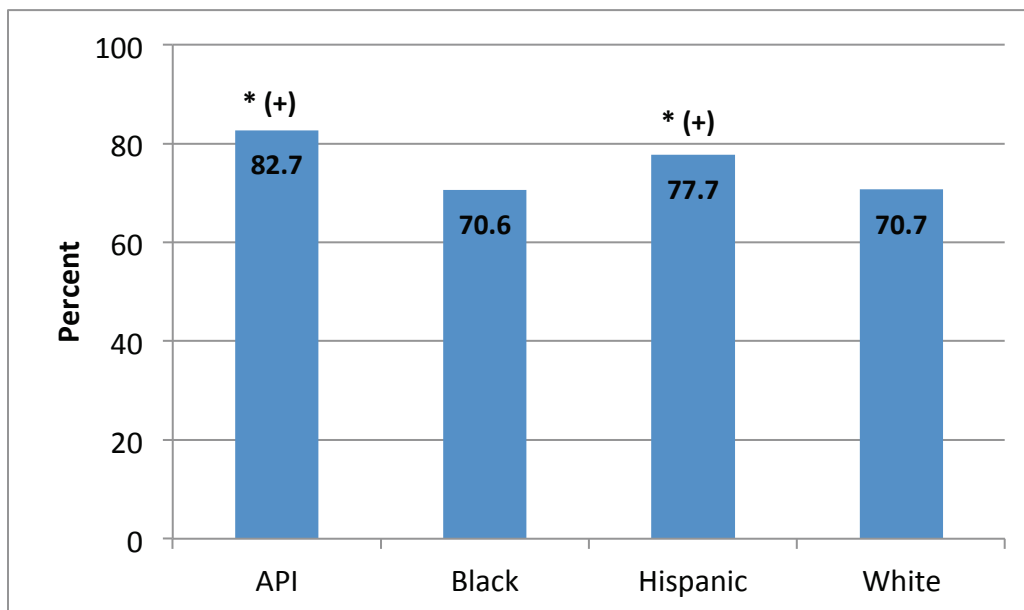
### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between each of these groups and Whites was less than 3 percentage points.
- In 2015, Blacks with diabetes were less likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Blacks and Whites was less than 3 percentage points.



## Clinical Care: Diabetes Care – Eye Exam

Percentage of Medicare enrollees aged 18 to 75 with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

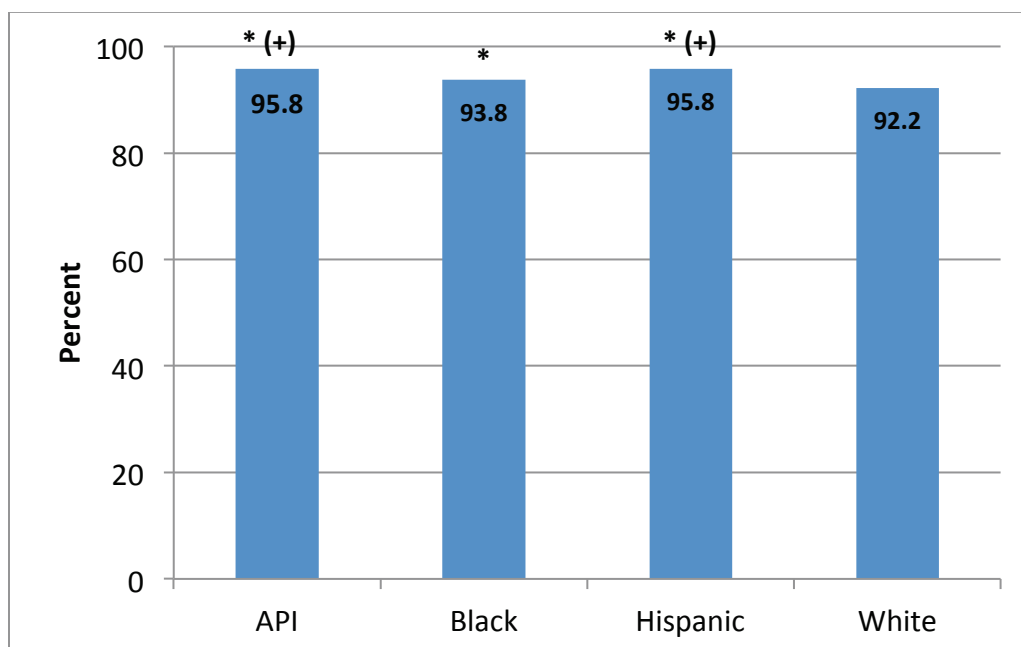
- (+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had an eye exam in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, Blacks with diabetes were as likely as Whites with diabetes to have had an eye exam in the past year.

## Clinical Care: Diabetes Care – Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18 to 75 with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

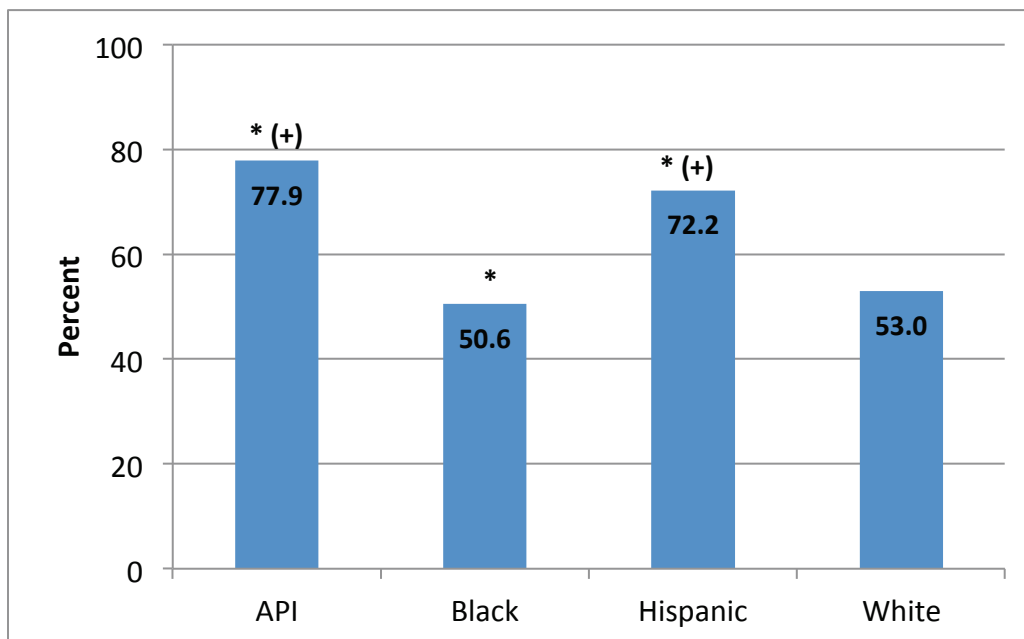
(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had medical attention for nephropathy in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, Blacks with diabetes were more likely than Whites with diabetes to have had medical attention for nephropathy in the past year, but the difference between these groups was less than 3 percentage points.

## Clinical Care: Diabetes Care – Blood Pressure Controlled

Percentage of Medicare enrollees aged 18 to 75 with diabetes whose most recent blood pressure was less than 140/90, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

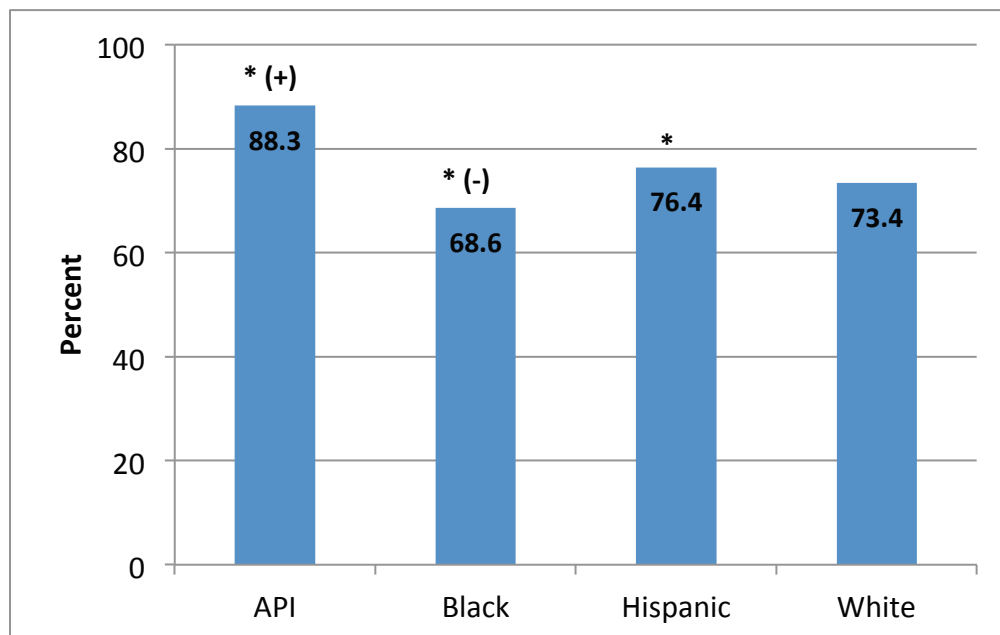
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood pressure under control. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, Blacks with diabetes were less likely than Whites with diabetes to have their blood pressure under control, but the difference between these groups was less than 3 percentage points.

## Clinical Care: Diabetes Care – Blood Sugar Controlled

Percentage of Medicare enrollees aged 18 to 75 with diabetes whose most recent HbA1c level was 9% or less, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

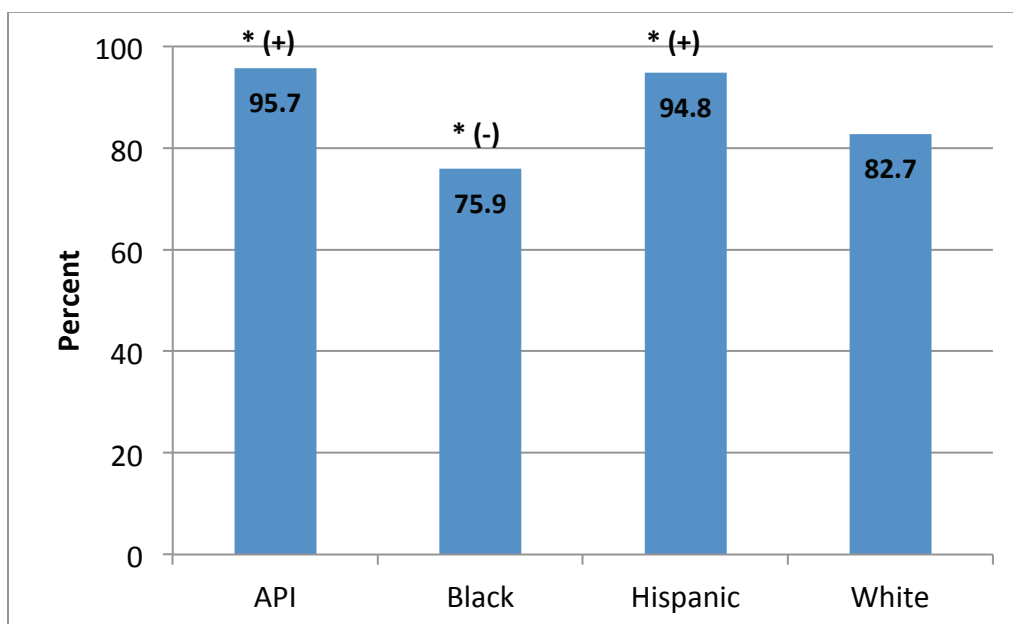
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood sugar level under control. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2015, Blacks with diabetes were less likely than Whites with diabetes to have their blood sugar level under control. The difference between Blacks and Whites was greater than 3 percentage points.

## Clinical Care: Adult Body Mass Index (BMI) Assessment

Percentage of Medicare enrollees 18 to 74 years of age who had an outpatient visit and whose BMI was documented in the past two years, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

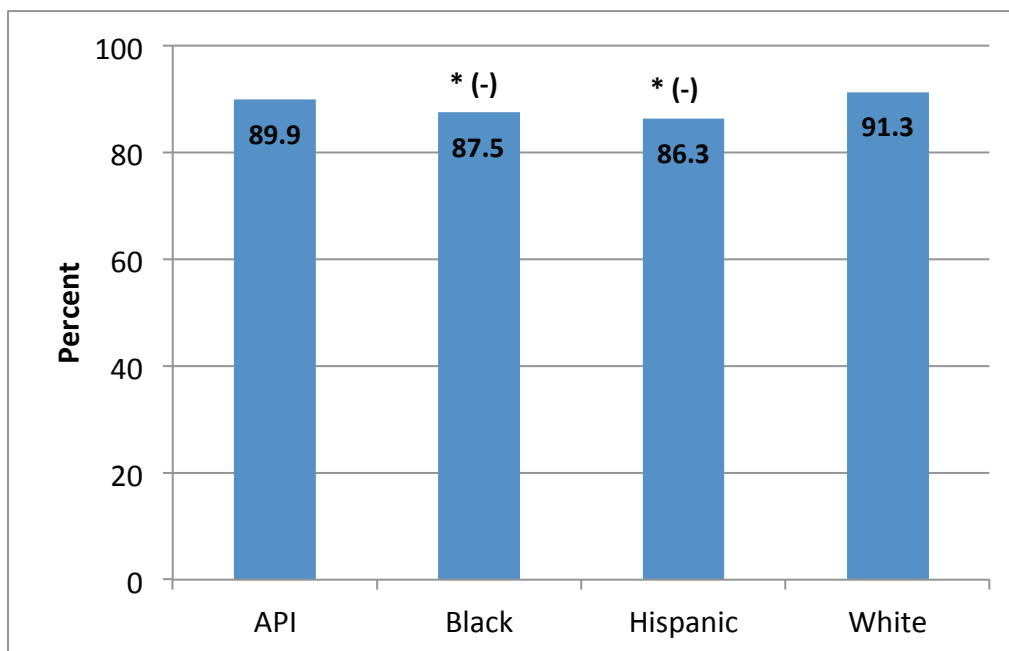
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics were more likely than Whites to have had their BMI documented. The difference between these groups and Whites was greater than 3 percentage points.
- In 2015, Blacks were less likely than Whites to have had their BMI documented. The difference between Blacks and Whites was greater than 3 percentage points.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees 18 years of age and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

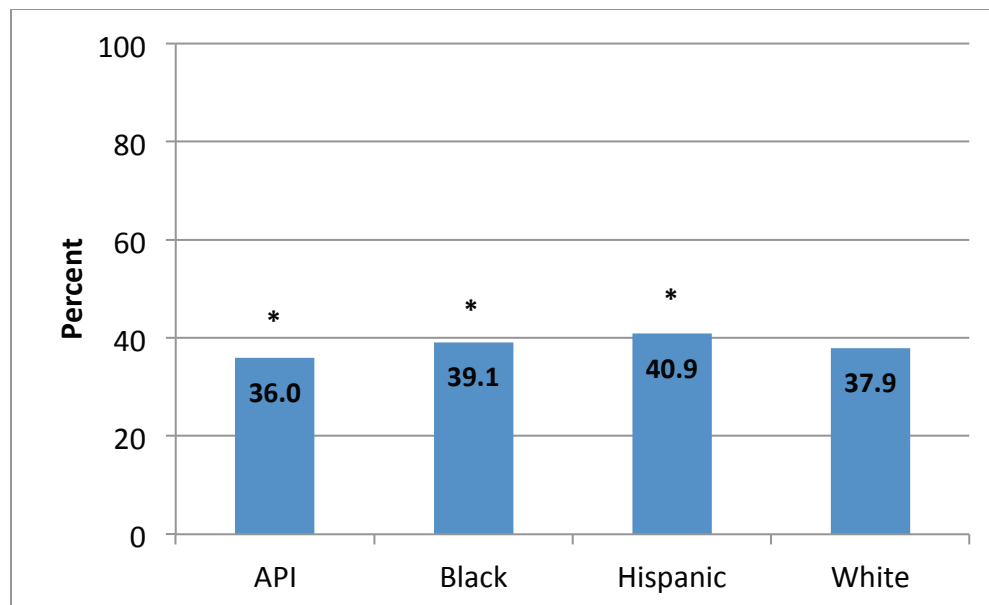
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Blacks and Hispanics who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, Asians or Pacific Islanders who were hospitalized for a heart attack were as likely as Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment.

## Clinical Care: Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)

Percentage of Medicare enrollees aged 40 or older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

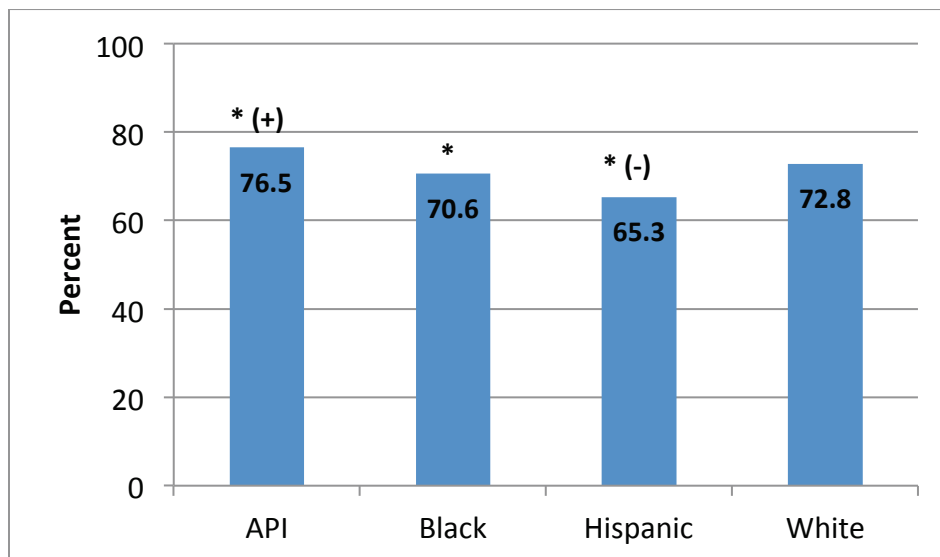
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Blacks and Hispanics with a new diagnosis of COPD or newly active COPD were more likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between each of these groups and Whites was less than 3 percentage points.
- In 2015, Asians or Pacific Islanders with a new diagnosis of COPD or newly active COPD were less likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation - Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees 40 years of age and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

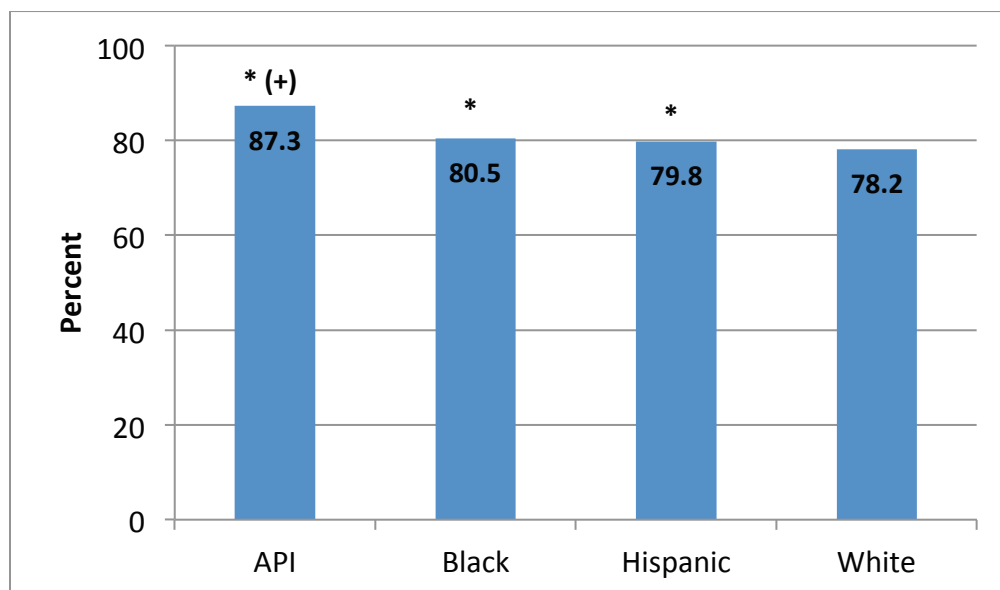
### Disparities

- In 2015, Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2015, Hispanics and Blacks who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Hispanics and Whites was greater than 3 percentage points. The difference between Blacks and Whites was less than 3 percentage points.



## Clinical Care: Pharmacotherapy Management of COPD Exacerbation - Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees 40 years of age and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

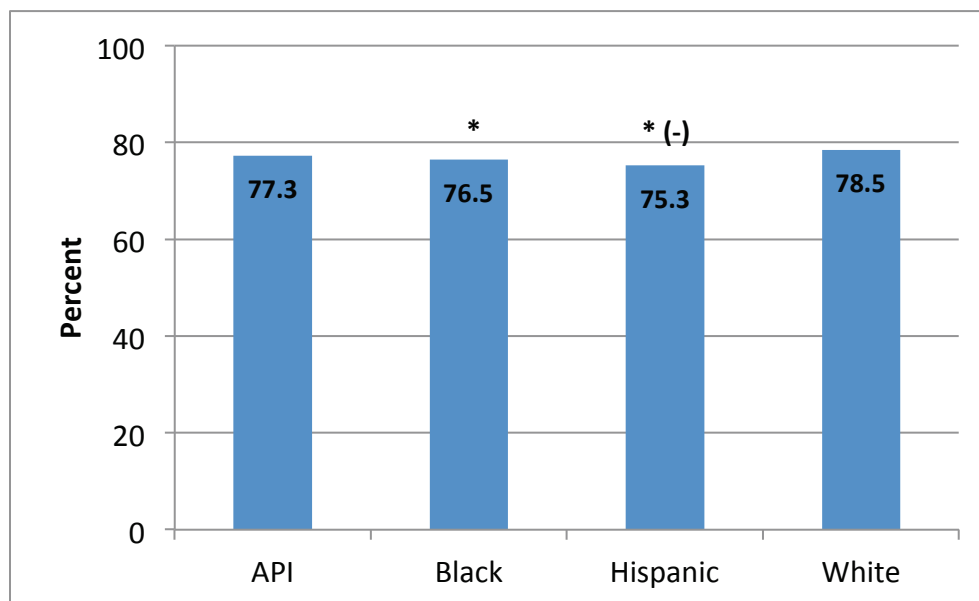
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders, Blacks, and Hispanics who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Blacks and Whites and between Hispanics and Whites was less than 3 percentage points.

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least one ambulatory prescription for a disease-modifying anti-rheumatic drug (DMARD), by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

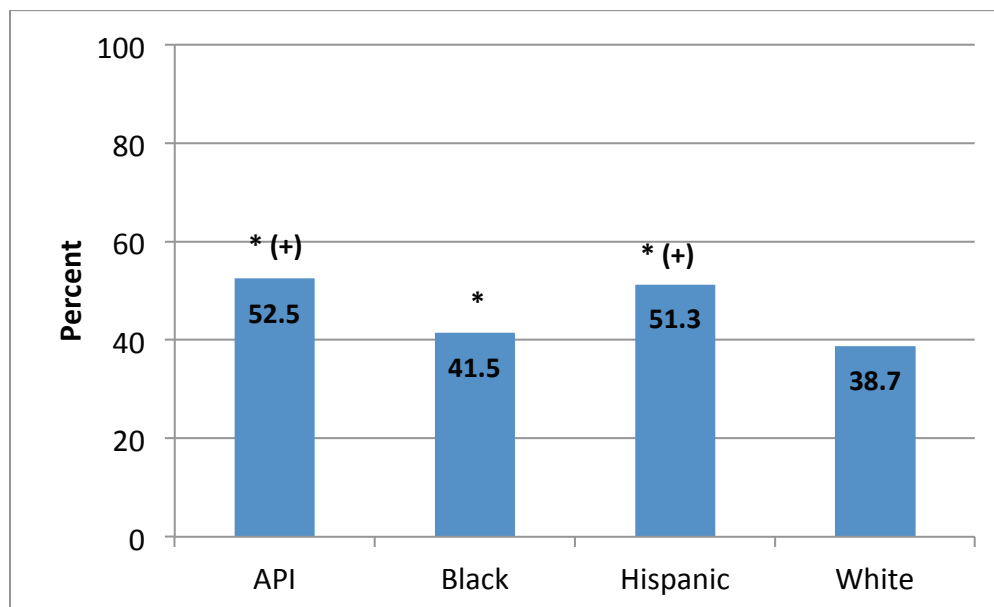
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Blacks and Hispanics who were diagnosed with rheumatic arthritis were less likely than Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between Hispanics and Whites was greater than 3 percentage points. The difference between Blacks and Whites was less than 3 percentage points.
- In 2015, Asians or Pacific Islanders who were diagnosed with rheumatic arthritis were as likely as Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD.

## Clinical Care: Osteoporosis Management in Women Who Had a Fracture

Percentage of Medicare enrollees (women) aged 67 to 85 who suffered a fracture and who had either a bone mineral density test or prescription for a drug to treat osteoporosis in the six months after the fracture, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

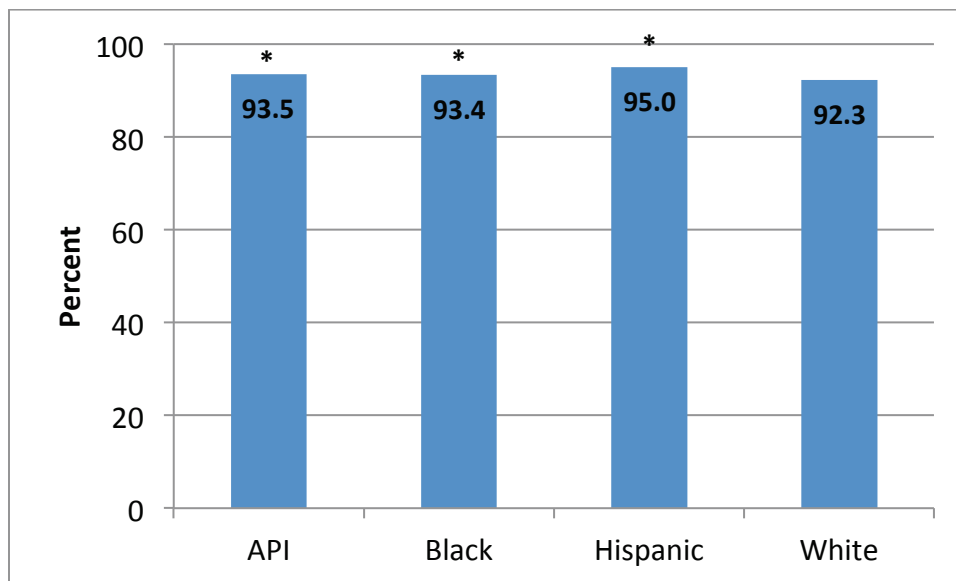
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asian or Pacific Islander, Black, and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or prescription for a drug to treat osteoporosis. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least one therapeutic monitoring event for the therapeutic agent during the year, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

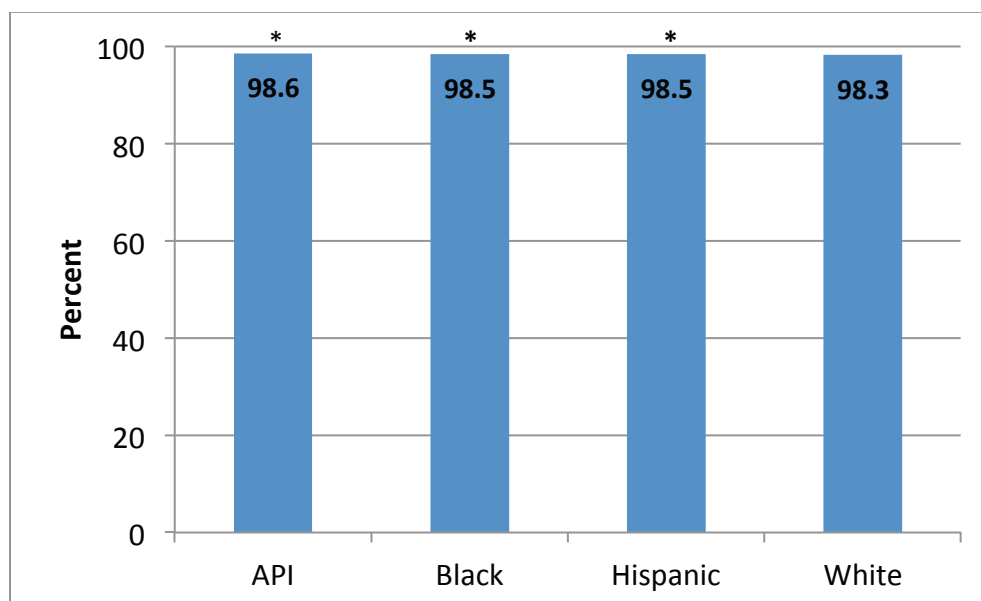
### Disparities

- In 2015, Asians or Pacific Islanders, Blacks, and Hispanics were more likely than Whites to have had at least one appropriate follow up visit during the year to monitor their use of a higher-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.

<sup>†</sup> This measure is limited to those who had prescription to the following drugs for 6 months or longer: Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin Receptor Blockers (ARB), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 and older who were not prescribed a high-risk medication<sup>†</sup>, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

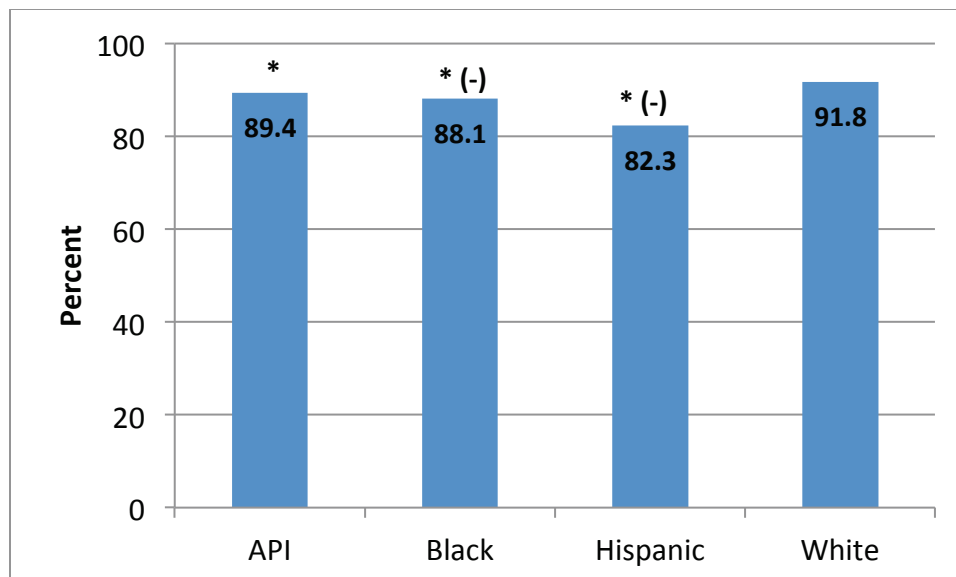
### Disparities

- In 2015, elderly Asians or Pacific Islanders, Blacks, and Hispanics were more likely than elderly Whites to have not been prescribed a high-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.

<sup>†</sup> This measure is limited to those who had prescription to the following drugs for 6 months or longer: Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin Receptor Blockers (ARB), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication<sup>†</sup>, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

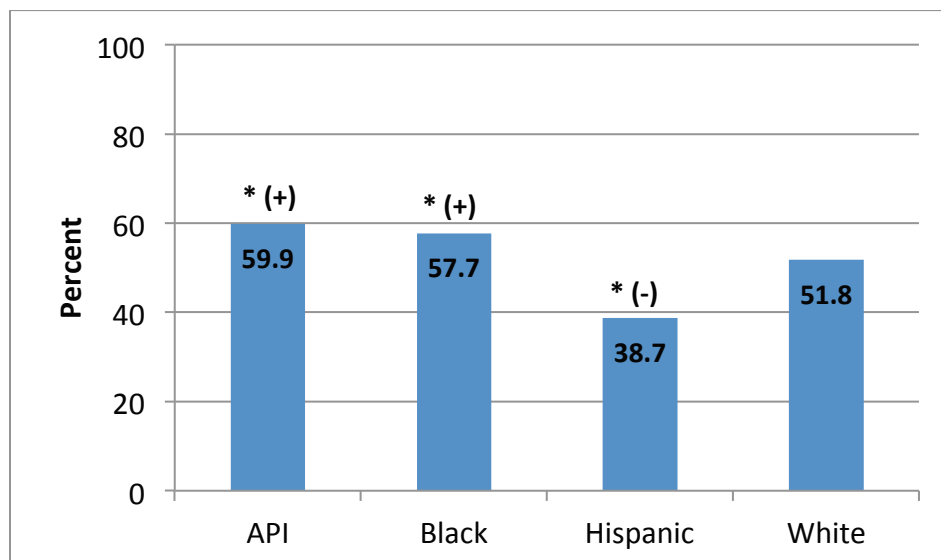
### Disparities

- In 2015, elderly Asians or Pacific Islanders, Blacks, and Hispanics with chronic renal failure were less likely than elderly Whites with chronic renal failure to have not been dispensed a potentially harmful medication. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points. The difference between Blacks and Whites was greater than 3 percentage points; the difference between Hispanics and Whites was also greater than 3 percentage points.

<sup>†</sup> This includes cyclo-oxygenase (Cox)-2 selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 and older with dementia who were not dispensed a prescription for a potentially harmful medication<sup>†</sup>, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

**(+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

**(-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

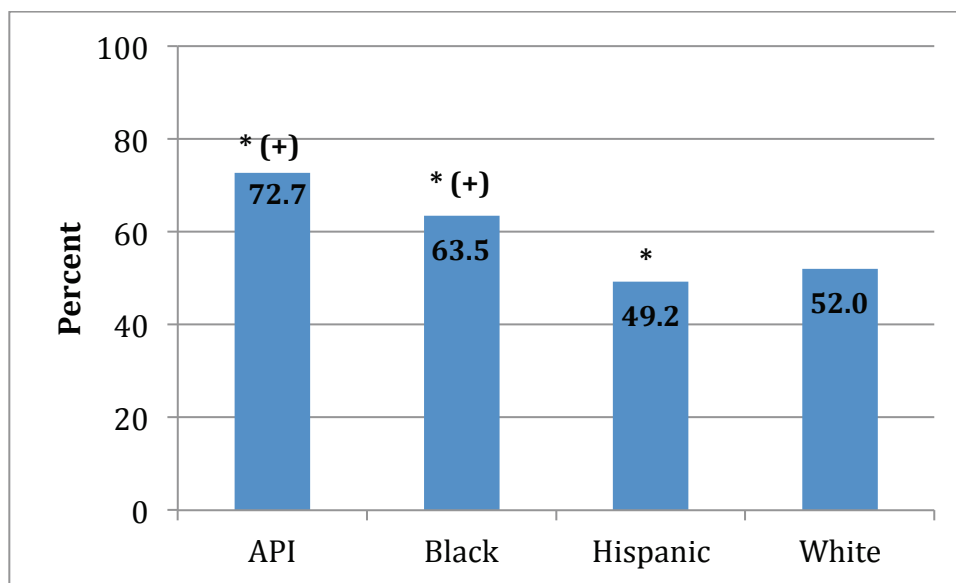
### Disparities

- In 2015, elderly Asians or Pacific Islanders and Blacks with dementia were more likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, elderly Hispanics with dementia were less likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between Hispanics and Whites was greater than 3 percentage points.

<sup>†</sup> This includes antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics, or anticholinergic agents.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

**Percentage of Medicare enrollees aged 65 and older with a history of falls who were not dispensed a prescription for a potentially harmful medication<sup>†</sup>, by race/ethnicity, 2015**



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

**(+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group

**(-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

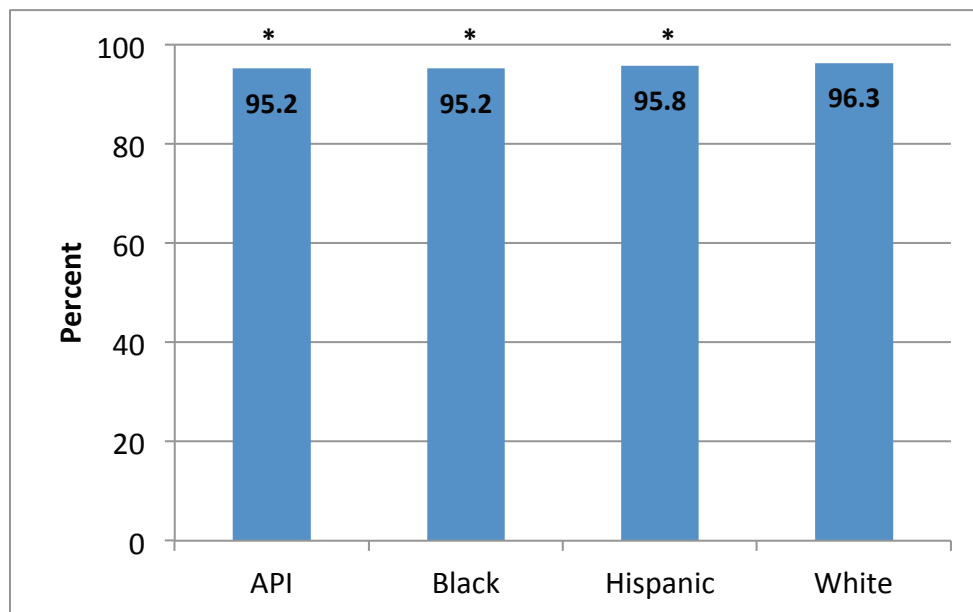
- In 2015, elderly Asians or Pacific Islanders and Blacks with a history of falls were more likely than elderly Whites with a history of falls to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2015, elderly Hispanics with a history of falls were less likely than elderly Whites with a history of falls to have not been dispensed a potentially harmful medication. The difference between these groups was less than 3 percentage points.

<sup>†</sup> This includes anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines, or tricyclic antidepressants.



## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 and older who had an ambulatory or preventive care visit, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

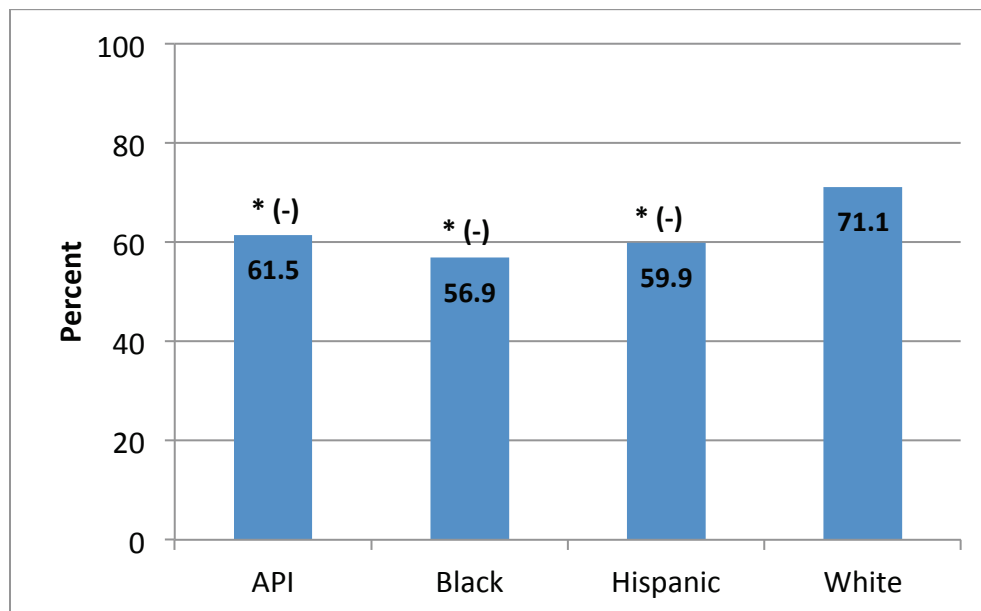
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders, Blacks, and Hispanics were less likely than Whites to have had an ambulatory or preventive care visit. The difference between each of these groups and Whites was less than 3 percentage points.

## Clinical Care: Antidepressant Medication Management – Acute Phase Treatment

**Percentage of Medicare enrollees aged 18 and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days, by race/ethnicity, 2015**



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

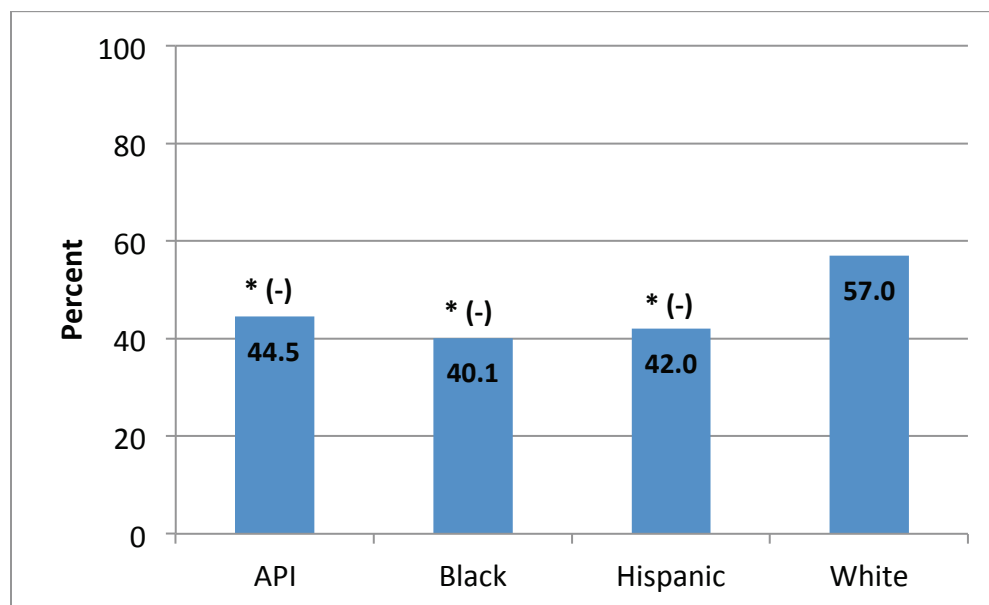
- (+)** Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-)** Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between each of these groups and Whites was greater than 3 percentage points.

## Clinical Care: Antidepressant Medication Management – Continuation Phase Treatment

**Percentage of Medicare enrollees aged 18 and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by race/ethnicity, 2015**



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

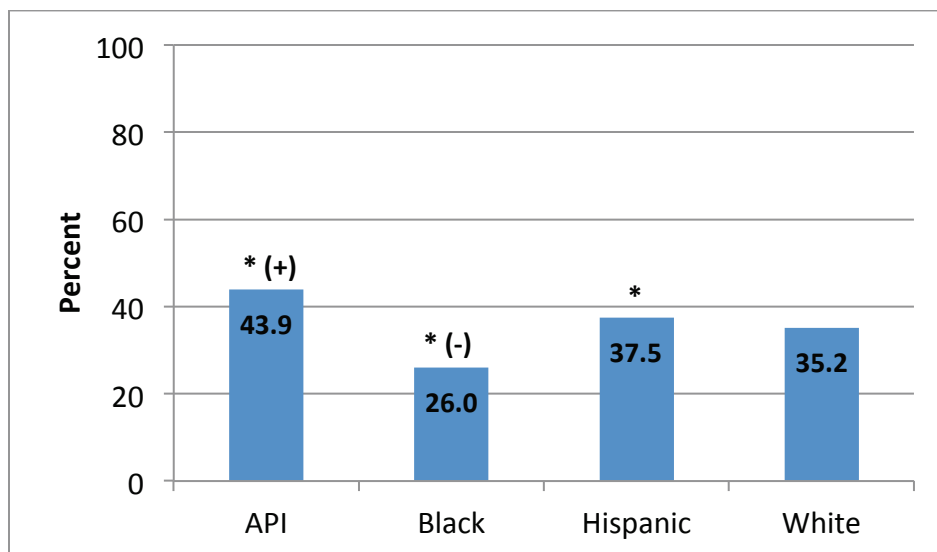
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The difference between each of these groups and Whites was greater than 3 percentage points.

## Clinical Care: Follow-Up Visit after Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees aged 6 and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 7 days of discharge, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

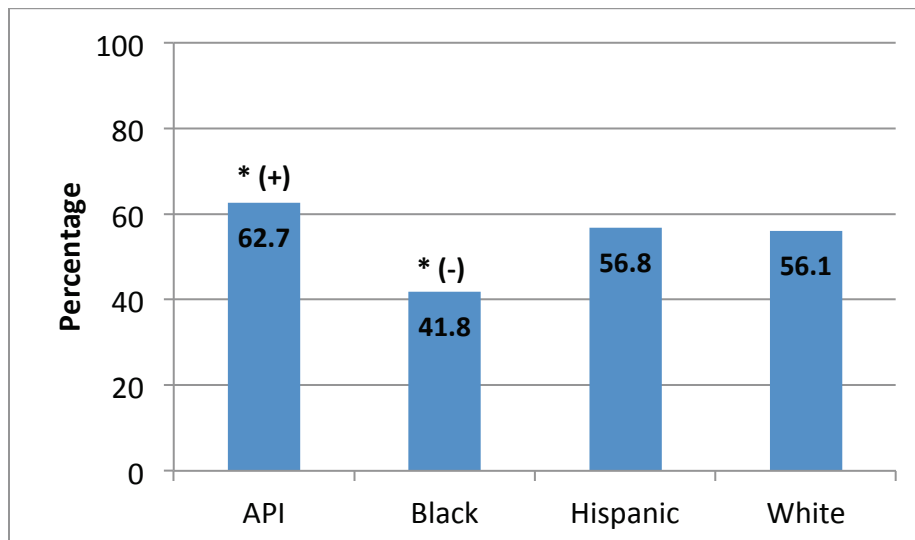
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 7 days of being discharged. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2015, Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 7 days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points.

## Clinical Care: Follow-Up Visit after Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 6 and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days of discharge, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

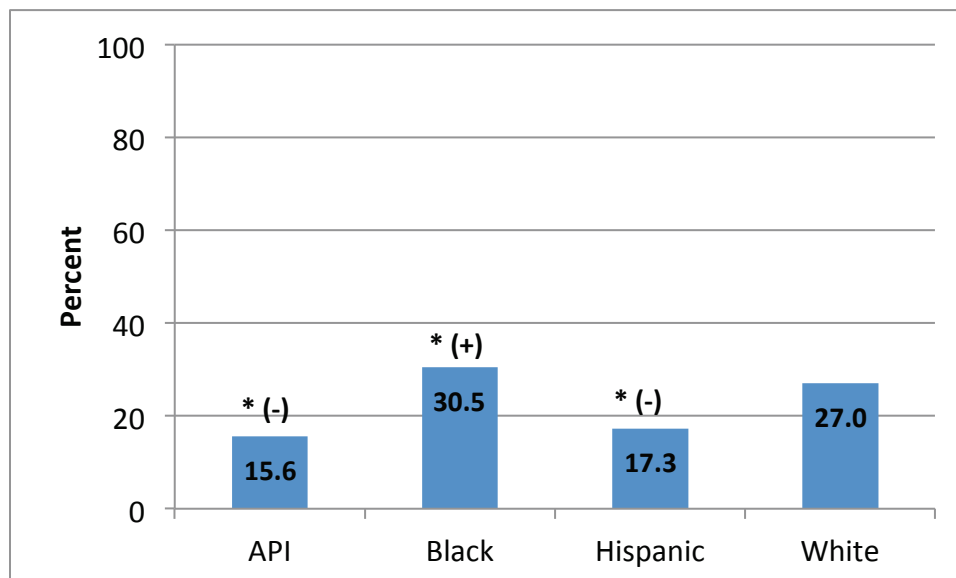
- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders who were hospitalized for a mental health disorder were more likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2015, Blacks who were hospitalized for a mental health disorder were less likely than Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge. The difference between Blacks and Whites was greater than 3 percentage points.
- In 2015, Hispanics who were hospitalized for a mental health disorder were as likely as Whites who were hospitalized for a mental health disorder to have had a follow-up visit with a mental health practitioner within 30 days of discharge.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiate<sup>†</sup> treatment within 14 days of the diagnosis, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points (prior to rounding) and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points (prior to rounding) and favors Whites

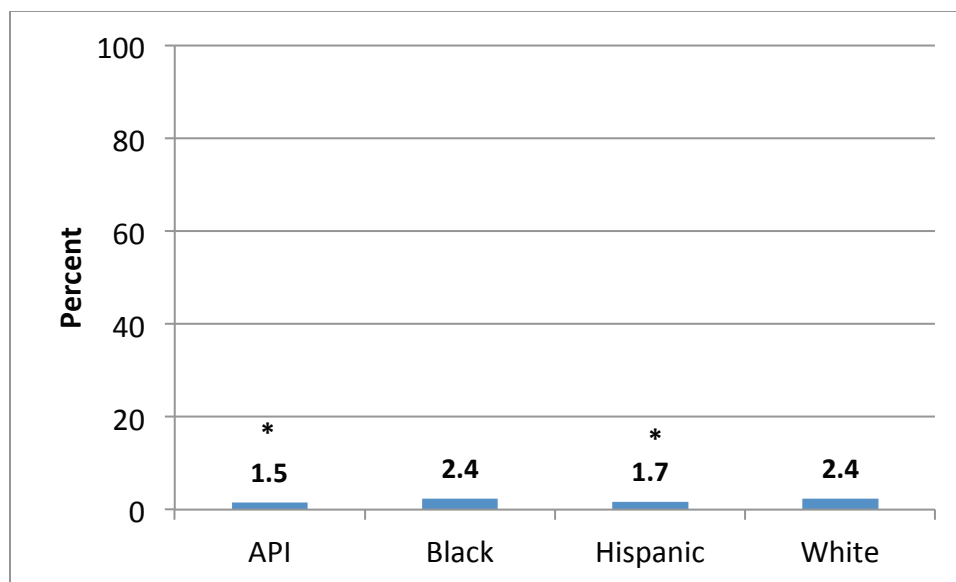
### Disparities

- In 2015, Blacks with a new episode of AOD dependence were more likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Blacks and Whites was greater than 3 percentage points.
- In 2015, Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence were less likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and Whites was greater than 3 percentage points.

<sup>†</sup> Initiation may occur through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization.

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit, by race/ethnicity, 2015



**Data source:** Clinical quality data collected in 2015 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander.

**Note:** Racial groups such as Blacks and Whites are non-Hispanic; Hispanic ethnicity includes all races.

\* Significantly different from the score for Whites ( $p < 0.05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

### Disparities

- In 2015, Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence and who initiated treatment were less likely than Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The difference between each of these groups and Whites was less than 3 percentage points.
- In 2015, Blacks with a new episode of AOD dependence and who initiated treatment were as likely as Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

## Appendix A: Data Sources and Methods

The Medicare Consumer Assessment of Healthcare Providers and Systems (MCAHPS) surveys are mail surveys with telephone follow-ups based on a stratified random sample of Medicare beneficiaries, with states serving as strata for beneficiaries with Fee-For-Service (FFS) coverage who are not enrolled in a prescription drug plan and with contracts serving as strata for all others. The 2015 MCAHPS survey attempted to contact 750,602 Medicare beneficiaries and received responses from 291,922, a 39-percent response rate. The 2015 surveys represent all FFS beneficiaries and Medicare Advantage (MA) beneficiaries from the 531 MA contracts with more than 600 eligible enrollees.

The MCAHPS surveys ask beneficiaries, “Are you of Hispanic or Latino origin or descent?” with response options of “Yes, Hispanic or Latino” and “No, not Hispanic or Latino.” The survey then asks, “What is your race? Please mark one or more,” with response options of “White,” “Black or African American,” “Asian,” “Native Hawaiian or other Pacific Islander,” and “American Indian or Alaska Native.” Following a U.S. Census approach, answers to these two questions were used to classify respondents into one of seven mutually exclusive categories: Hispanic, multiracial, American Indian/Alaska Native (AI/AN), Asian/Pacific Islander (API), Black, White, or unknown.

- Respondents who endorsed Hispanic ethnicity were classified as Hispanic regardless of races endorsed.
- Non-Hispanic respondents who endorsed two or more races were classified as multiracial, with a single exception: those who selected both “Asian” and “Native Hawaiian or other Pacific Islander” but no other race were classified as API.
- Non-Hispanic respondents who selected exactly one race were classified as AI/AN, API, Black, or White, according to their response.
- Respondents without data regarding race/ethnicity were classified as unknown.
- We do not include estimates for the multiracial and unknown subgroups in this document.

The Healthcare Effectiveness Data and Information Set (HEDIS) consists of 81 clinical care measures across five domains (National Committee for Quality Assurance [NCQA], 2016). These domains include effectiveness of care, access/availability of care, experience of care, utilization and relative resource use, and health plan descriptive information. HEDIS measures are developed, tested, and validated under the direction of the NCQA. Whereas CAHPS data are collected only through surveys, HEDIS data are gathered both through surveys and through medical charts and insurance claims for hospitalizations, medical office visits, and procedures (Agency for Healthcare Research and Quality, 2015). HEDIS data, unlike CAHPS data, do not contain the patient’s self-reported race/ethnicity. Therefore, race/ethnicity was imputed for the HEDIS data using a methodology that combines information from administrative data, surname, and residential location (Martino et al., 2013). In 2015, there were 513 MA contracts that supplied the 17,878,452 HEDIS measure records used.



With one exception (the annual flu vaccine measure), the CAHPS measures presented in this report are composite measures which summarize, through averaging, the answers to two or more related CAHPS survey questions or “items.”

CAHPS estimates are case-mix adjusted in linear regression models that contain health contract-intercepts, racial/ethnic indicators (as the primary independent variable), and the following case-mix adjusters: age, education, self-rated health and mental health, dual eligibility/low-income subsidy, and proxy status. There is no adjustment for survey language. Race/ethnicity is coded as Hispanic, Black, API, AI/AN, multiracial, and unknown, with White omitted.

HEDIS measures use predicted probabilities of race/ethnicity as weights to develop estimates for each racial/ethnic group (Elliott et al., 2009).

Statistical significance tests were used to compare the model-estimated scores for each racial/ethnic minority group to the score for Whites. A difference in scores is denoted as statistically significant if there is less than a 5-percent chance that the difference could have resulted due to sampling error alone. Differences that are statistically significant and larger than three points on a 0-100 scale (CAHPS) or 3 percentage points (HEDIS) are further denoted as practically significant (in all cases, practically significant differences are statistically significant). That is, in the charts that present national data on racial/ethnic differences in patient experience (CAHPS) and clinical care (HEDIS), differences that are not statistically significant or statistically significant but less than 3 points in magnitude are distinguished (through the use of symbols and labeling) from differences that are both statistically significant and 3 points in magnitude or larger. The 3-point criterion was selected because a 3-point increase in some CAHPS measures has been shown to be associated with a 30-percent reduction in disenrollment from health plans (Lied et al., 2003).

## References

Agency for Healthcare Research and Quality. (2015). "Data Sources—National Committee for Quality Assurance (NCQA)."

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<http://www.ncqa.org/hedis-quality-measurement>

## **Frequently Asked Questions Reporting of National and Medicare Advantage Contract Level Quality Scores by Race and Ethnicity**

### **1. What is CMS announcing today?**

CMS is announcing the release of national level results for certain Medicare quality measures stratified by race and ethnicity for 2015, and Medicare Advantage (MA) contract level results stratified by race and ethnicity using the two most current years of pooled data (initial release combines 2014 and 2015). These reports will be available to the general public annually beginning with this release.

### **2. Why is CMS displaying this information?**

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes (2014 National Healthcare Quality and Disparities Report - <http://www.ahrq.gov/research/findings/nhqrd/index.html>). To begin to comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Section 4302 of the Affordable Care Act (adding section 3101 to the Public Health Service Act) requires the reporting and public posting of these data on HHS websites as well as other dissemination strategies.

### **3. What do these data represent?**

The data presented indicate overall differences in the care that is delivered to Medicare beneficiaries who identify as Asian or Pacific Islander, Black/African American, Hispanic, or White. These are total differences, which include both within and between contract differences. That is, the differences include both differences between subgroups within a particular contract and differences that arise from varying quality levels across contracts for all enrollees.

### **4. How can MA contracts use this information to improve performance?**

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures by MA contract, stratified by race and ethnicity. This activity provides information that will be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally and linguistically appropriate quality improvement interventions and strategies.

### **5. Are these results included in the MA and Part D Star Ratings Program?**

NO. This effort is entirely separate from the MA and Part D Star Ratings program. These scores are intended to be used for health and drug plan quality improvement and accountability purposes.

### **6. Do the data presented in this release suggest that CMS' socio-economic status (SES) adjustment of Part C and Part D Star Ratings programs should have been larger or whether CMS should NOT have adjusted for SES?**

The data presented analyze HEDIS and CAHPS data as they are scored, with no adjustment to the HEDIS measures, and with CAHPS measures already case-mix adjusted for low income, dual eligibility, and other factors. These analyses examined racial/ethnic differences in HEDIS and CAHPS scores overall and by contract. The HEDIS analyses did not include any measure of SES. As such these analyses do not directly inform the adjustment of HEDIS measures for SES. The proportion of Medicare beneficiaries with low SES does differ across racial/ethnic groups, as well as across other demographic subgroups. The descriptive data in this release do not suggest that adjustment of Part C and D Star Ratings for SES is inappropriate. Additionally, research conducted by ASPE found that adding indicators of race/ethnicity to SES adjustment models for HEDIS measures used in the MA Star Ratings had little effect on the coefficients used for adjustment by SES.

**7. Why are the data shown by contract, rather than by plan?**

Data are shown by contract because CMS quality data are collected at the contract level.

**8. Do these results affect MA contract payments?**

NO. These results are not used for payment purposes of any sort. As required by the IMPACT Act of 2014, the HHS Office of the Assistant Secretary for Planning and Evaluation is examining the differential effect of a number of demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures. Results are expected in 2017.

**9. Why is my MA contract not listed on the page that shows scores for a particular racial/ethnic minority group?**

We do not list MA contracts for which there is too little information to reliably report any of the measures of patient experience or clinical care for a particular racial and ethnic minority group. Having too little information to report does not mean that an MA contract did anything wrong, it means there is not enough information from the sample of members used for reporting at the time this report was generated.

**10. Why are there two separate files that present MA contract level data? How are the two files different?**

Both files contain information about the care that MA and Part D contracts gave to members in each of four racial and ethnic groups: Asian/Pacific Islanders, Blacks/African Americans, Hispanics, and Whites. The two data files contain the same information, but the information is organized differently in the “single-group” file than in the “multiple-group” file. The single-group file contains four separate tables, for members in each of four racial and ethnic groups. Each table describes how MA contracts differ in the care that they deliver to members who are Asian/Pacific Islander, Black/African American, Hispanic, or White. This file allows you to easily compare across MA contracts for a particular racial/ethnic group. The multiple-group file contains one table that shows contract by contract—how quality scores differ for each of the four racial and ethnic groups. This file allows you to compare across racial/ethnic groups by MA contract.

**11. If the score for a particular racial/ethnic minority group is lower than the score for Whites for a MA contract, what does that mean?**

For patient experience measures (not including the flu immunization measure, which is a clinical care measure included in the Medicare CAHPS Survey), a lower score for a particular racial/ethnic minority group means that members of that contract who are members of a particular racial/ethnic minority group reported worse experiences than members of that MA contract who are White after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure, are not adjusted for these other characteristics. On clinical care measures, a lower score for a particular racial/ethnic minority group means that members of the MA contract who are members of that particular racial/ethnic minority group received worse care than members of that contract who are White.

**12. If a MA contract does not have a score for members who are in a particular racial/ethnic minority group, does that mean the MA contract doesn't have any or many members who are in that particular racial/ethnic minority group? Does it mean the MA contract has a low score for members who are in that particular racial/ethnic minority group?**

If an MA contract does not have a score for a particular racial/ethnic group, it means that there are not enough data on the experiences of that group to permit reliable reporting of scores for that group. It does not mean that the MA contract provided poor care to members of that group, or that the MA contract did anything wrong.

**13. Why are there so few Prescription Drug Plans (PDPs) with data for Asians/Pacific Islanders, Blacks/African Americans, and Hispanics?**

In order to have a reliable report of experience with a MA contract we need information from at least 100 members. To have a reliable report of experience with a PDP, we need information from at least 200 members. We need more members to reliably measure quality differences between PDPs because those differences tend to be smaller and harder to measure. Few PDPs meet the sample size requirement for reporting on Asians/Pacific Islanders, Blacks/African Americans, and Hispanics.

**14. Why are some scores reported with a footnote saying that the scores should be used with caution?**

Scores with this footnote have low reliability (0.6 to 0.7 on a scale that ranges from 0 to 1), which means that they may not be a precise measure of a contract's performance. Reliability measures the extent to which a contract's score accurately measures the difference in the performance of that contract from other contracts. Scores with high reliability (greater than 0.7) are reported with no footnote. Scores with very low reliability (below 0.6) are not reported. Scores reported with a footnote have low but not very low reliability. They fall in a "gray area" between precise and imprecise, which is why users are urged to be cautious when interpreting the scores. Scores with lower reliability typically are those based on fewer members' experiences or involve measures for which it is harder to distinguish performance across MA contracts.

**15. Why do the national data on disparities in patient experience and or clinical care contain information on American Indians and Alaska Natives but contract-level files do not?**

No MA contracts meet the sample size requirements for reporting on the quality of care provided to American Indians and Alaska Natives. Thus, that group is excluded from the contract-level data files.

**16. Why does my CAHPS vendor have a different score than what appears in these files?**

Any difference in the racial/ethnic group scores provided by CMS and similar reports provided by your vendor may be due to differences in the application of CAHPS data cleaning rules, vendor differences in how scores are calculated, vendor differences in determination of an eligible survey, or vendor assignment of race and ethnicity.



# Racial and Ethnic Disparities in Health Care in Medicare Advantage



*CMS Office of Minority Health  
in collaboration with  
the RAND Corporation*

## Background and Purpose

This document presents summary information on the quality of health care received by Medicare beneficiaries, including information about their experiences as patients obtaining care. This quality of care data is presented at the national level, and is shown for different racial/ethnic groups. This information may be of interest to Medicare beneficiaries, Medicare Advantage and prescription drug plans, and others interested in better understanding beneficiaries' quality of care and how it differs across racial/ethnic groups.

The specific measures reported fall into two categories: (1) patient experience measures and (2) clinical care measures. Examples of patient experience measures include how easy it is to get needed care, how well doctors communicate with beneficiaries, and how easy it is for beneficiaries to get information from their drug plan about prescription drug coverage and cost. Examples of clinical care measures include whether beneficiaries received appropriate screening for colon cancer, whether beneficiaries with diabetes received a test that determines whether their blood sugar is under control, and whether beneficiaries with hypertension had their blood pressure adequately controlled. In all, this document provides data regarding eight patient experience measures and 27 clinical care measures.

The patient experience data were collected from a national survey of Medicare beneficiaries known as the Medicare Consumer Assessment of Healthcare Providers and Systems (CAHPS) survey. This survey is administered each year; the data in this document are from the 2014 Medicare CAHPS survey. The clinical care data are gathered through medical records and insurance claims for hospitalizations, medical office visits, and procedures. These data, which are collected each year from Medicare health plans nationwide, are part of the Healthcare Effectiveness Data and Information Set (HEDIS). The HEDIS data reported here are for 2014.

Data are reported separately for specific racial/ethnic groups because there is evidence that quality of care (as measured by both patient experience and clinical care measures) may be different for different groups. For the patient experience measures, data are provided for five racial/ethnic groups: (1) American Indians and Alaska Natives, (2) Asians and Pacific Islanders (including Native Hawaiians), (3) Blacks, (4) Hispanics, and (5) Whites. These racial/ethnic groups were chosen because enough information was available about beneficiaries in these groups to allow for a description of the care they received. For the clinical care measures, data are given for the same racial/ethnic groups except American Indians and Alaska Natives. This is because the clinical care data lack information that allows us to reliably determine which beneficiaries are in this group.

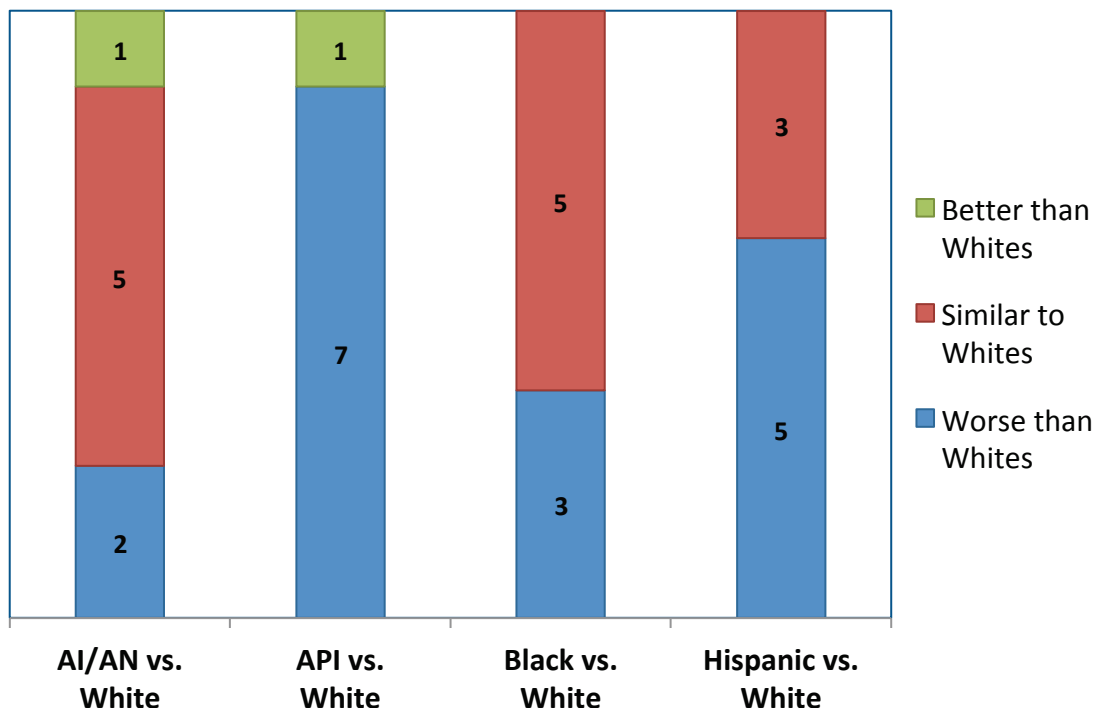
Data for each of the patient experience/clinical care measures are presented in the form of bar charts. Separate unstacked bar charts are shown for each measure. For each patient experience measure, the chart shows the average score for each racial/ethnic group on a 0 to 100 scale. The average score represents the percent of the best possible score for a given group for that measure. An additional, stacked bar chart shows the number of patient experience measures (out of eight) for which members of selected groups reported experiences of care that were worse than, similar to, or better than the experiences reported by Whites. For each clinical care measure, the unstacked bar charts show the average percentage of beneficiaries in each group whose care met the standard called for by the specific measure (e.g., a test or treatment). An additional stacked bar chart shows the number of clinical care measures (out of 27) for which members of selected groups experienced care that was worse than, similar to, or better than the care experienced by Whites.

For detailed information on data sources and analytic methods, see Appendix A.



## Disparities in Care: All Patient Experience Measures

Number of patient experience measures (out of 8) for which members of selected groups reported experiences that are worse than, similar to, or better than the experiences reported by Whites in 2014



**Data source:** This chart summarizes data from all Medicare Advantage beneficiaries nationwide who participated in the 2014 Medicare Consumer Assessment of Healthcare Providers and Systems Survey.

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

**Notes:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

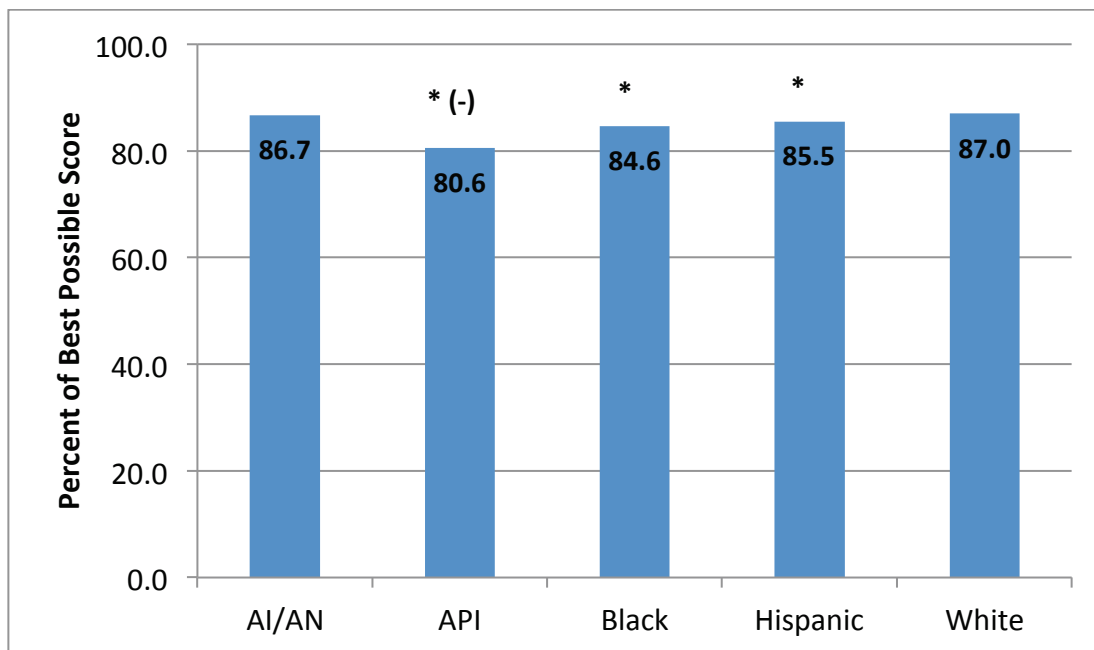
The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population had better patient experience than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0 to 100 scale, and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar patient experiences. Differences are less than 3 points on a 0 to 100 scale. Differences may be statistically significant.
- **Worse** = Population had worse patient experience than Whites. Differences are statistically significant, are equal to or larger than 3 points on a 0 to 100 scale, and favor Whites.

**Example:** Compared with Whites, Hispanics reported worse patient experience for 5 of the 8 patient experience measures, and similar experience for 3 of the measures.

## Patient Experience: Getting Needed Care

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is for patients to get needed care, including care from specialists, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

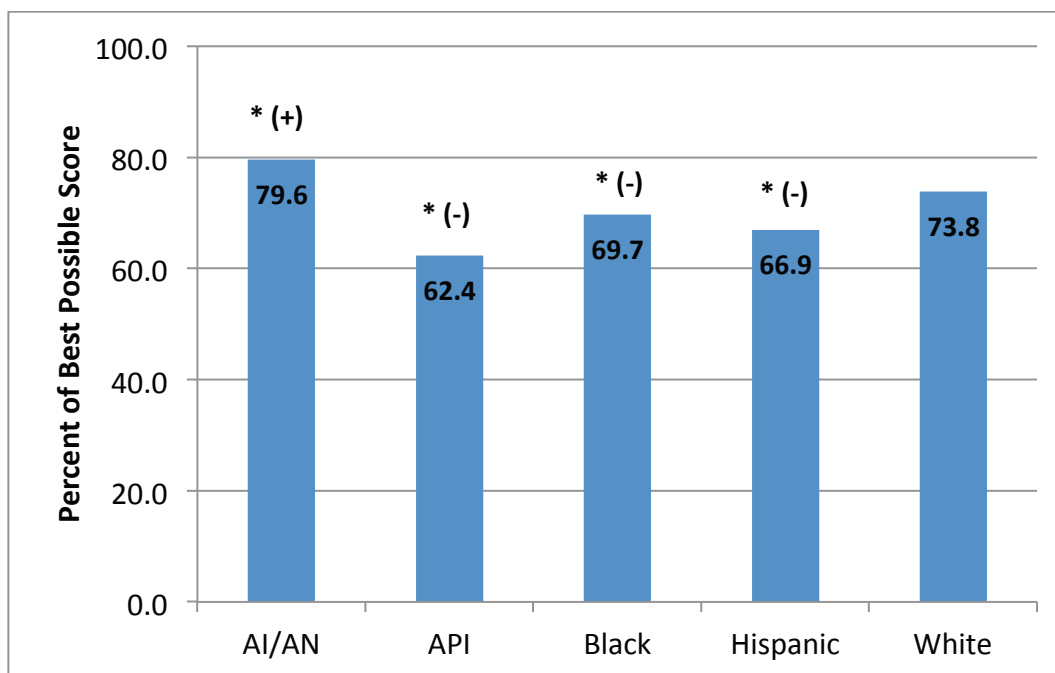
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics reported that it was less easy to get needed care than did Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0-100 scale. The difference between Blacks and Whites and between Hispanics and Whites was less than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives reported similar experiences as Whites getting needed care.

## Patient Experience: Getting Appointments and Care Quickly

Percent of the best possible score (on a 0 to 100 scale) earned on how quickly patients get appointments and care, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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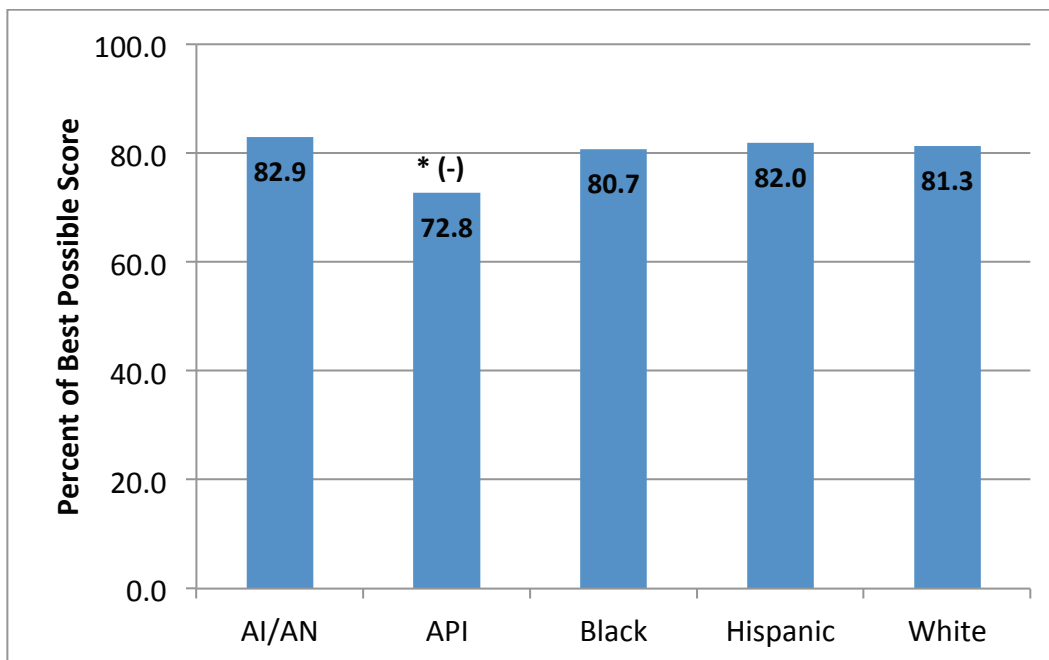
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics reported getting appointments and care less quickly than did Whites. The difference between these groups and Whites was greater than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives reported getting appointments and care more quickly than did Whites. The difference between American Indians or Alaska Natives and Whites was greater than 3 points on a 0-100 scale.

## Patient Experience: Customer Service

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is to get information and help from one's plan when needed, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points and favors Whites

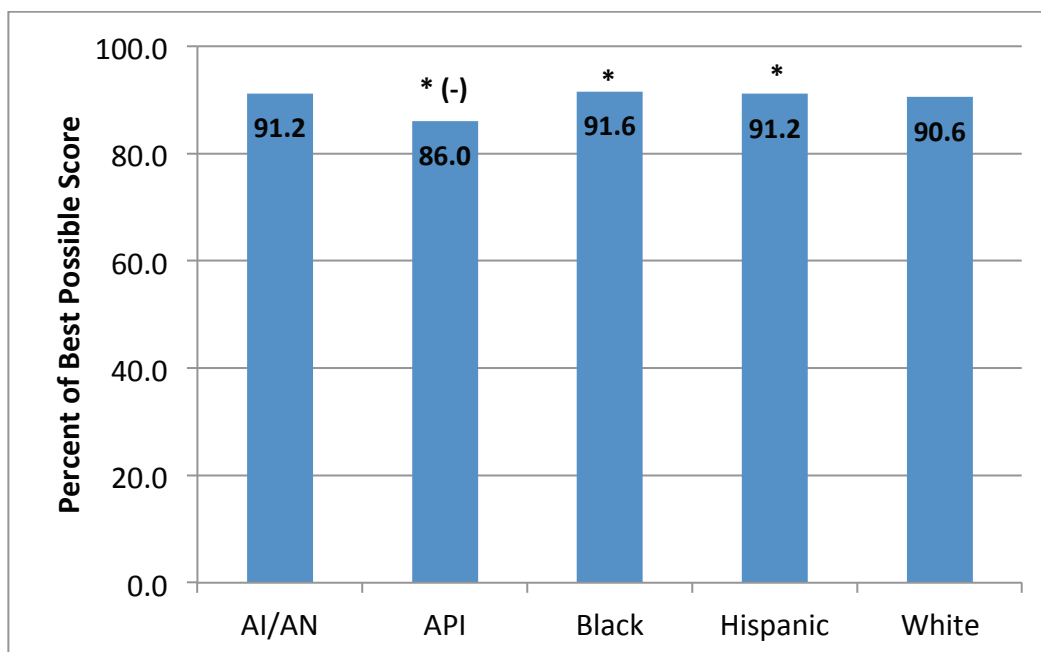
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders reported that it was harder to get information and help from their plan when needed than did Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives, Blacks, and Hispanics reported similar experiences as Whites getting information and help from their plan.

## Patient Experience: Doctors Who Communicate Well

Percent of the best possible score (on a 0 to 100 scale) earned on how well doctors communicate with patients, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group
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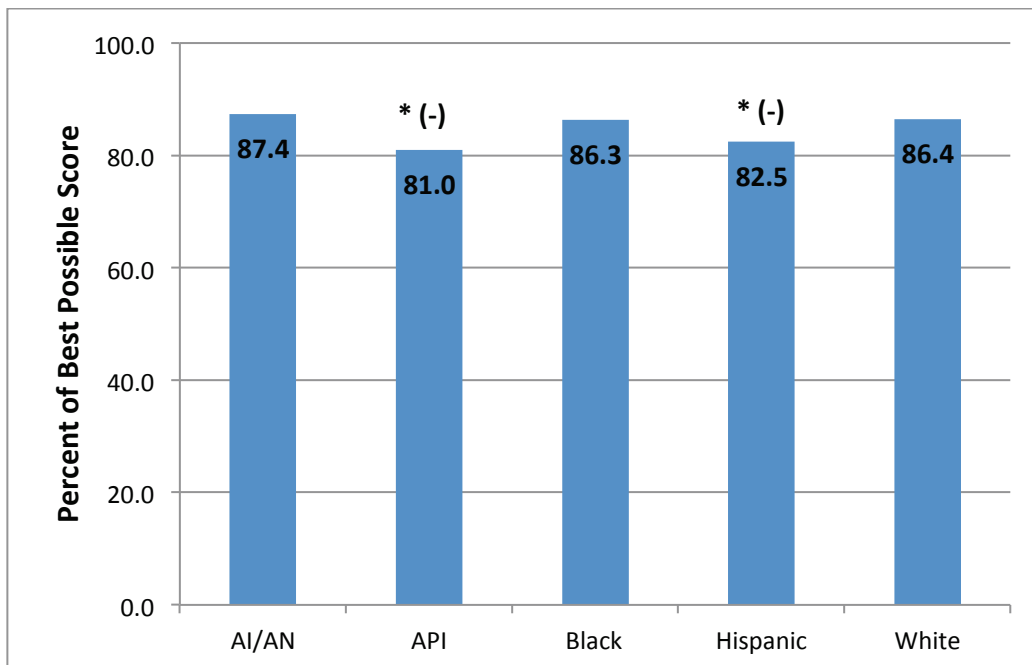
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders reported worse doctor communication than did Whites. The difference between Asians or Pacific Islanders and Whites was greater than 3 points on a 0-100 scale.
- In 2014, Blacks and Hispanics reported better doctor communication than did Whites. The difference between these groups and Whites was less than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives reported experiences with doctor communication that were similar to the experiences reported by Whites.

## Patient Experience: Care Coordination

Percent of the best possible score (on a 0 to 100 scale) earned on how well patients' care was coordinated,<sup>†</sup> by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

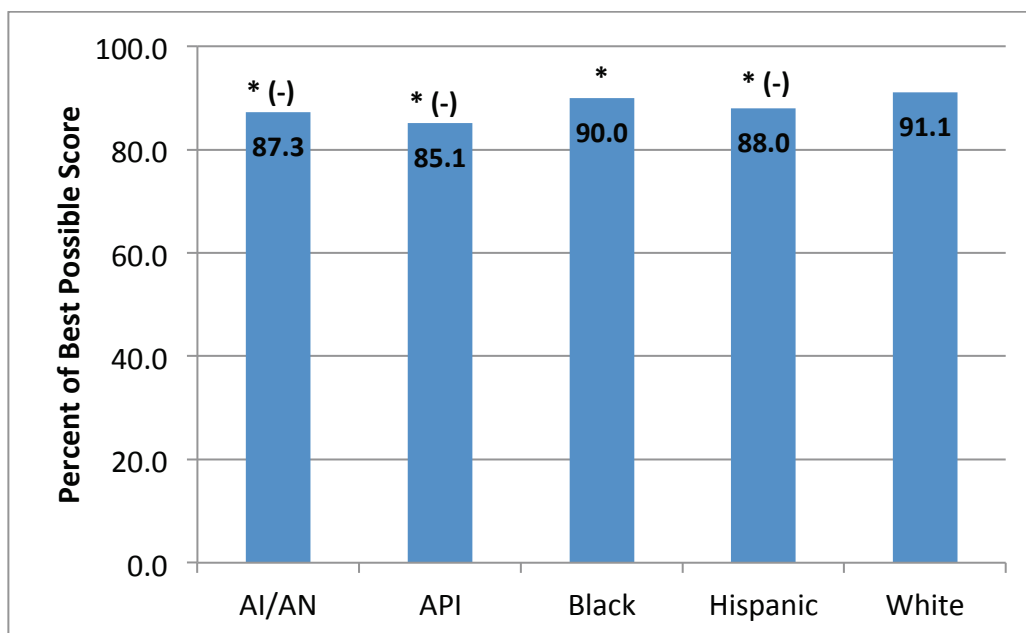
### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics reported worse care coordination than did Whites. The difference between these groups and Whites was greater than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives and Blacks reported experiences with care coordination that were similar to the experiences reported by Whites.

<sup>†</sup> This includes whether doctors had the records and information they needed about patients' care and how quickly patients got their test results.

## Patient Experience: Getting Needed Prescription Drugs

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it is for beneficiaries to get the prescription drugs they need using their plan, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points and favors Whites

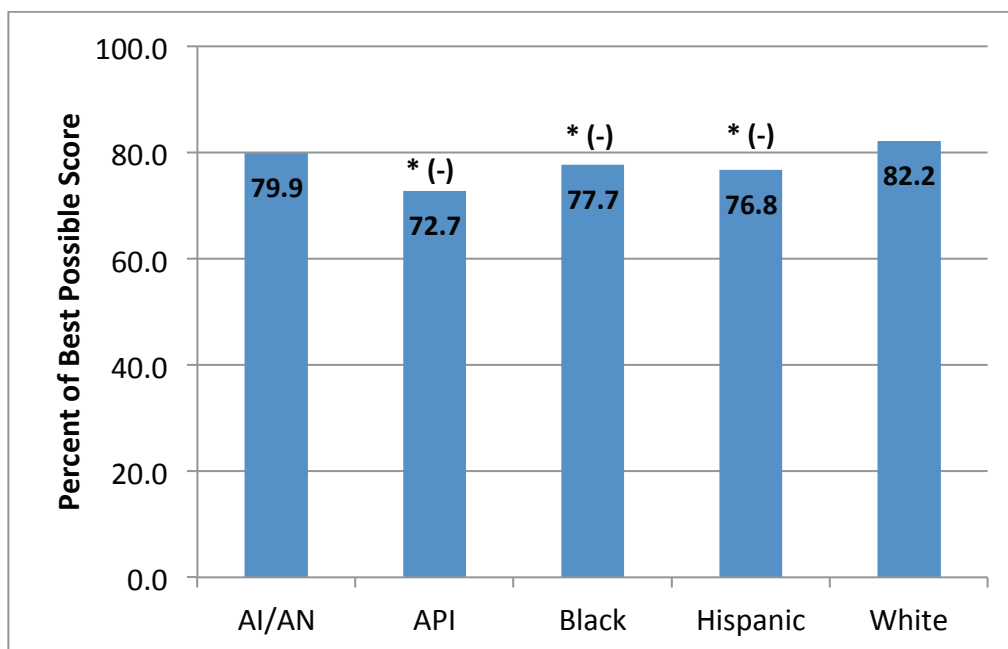
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, American Indians or Alaska Natives, Asians or Pacific Islanders, and Hispanics reported more difficulty getting needed prescription drugs than did Whites. The difference between each of these groups and Whites was greater than 3 points on a 0-100 scale.
- In 2014, Blacks reported more difficulty getting needed prescription drugs than did Whites, but the difference between these groups was less than 3 points on a 0-100 scale.

## Patient Experience: Getting Information about Prescription Drugs

Percent of the best possible score (on a 0 to 100 scale) earned on how easy it was for beneficiaries to get information from their plan about prescription drug coverage and cost, by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

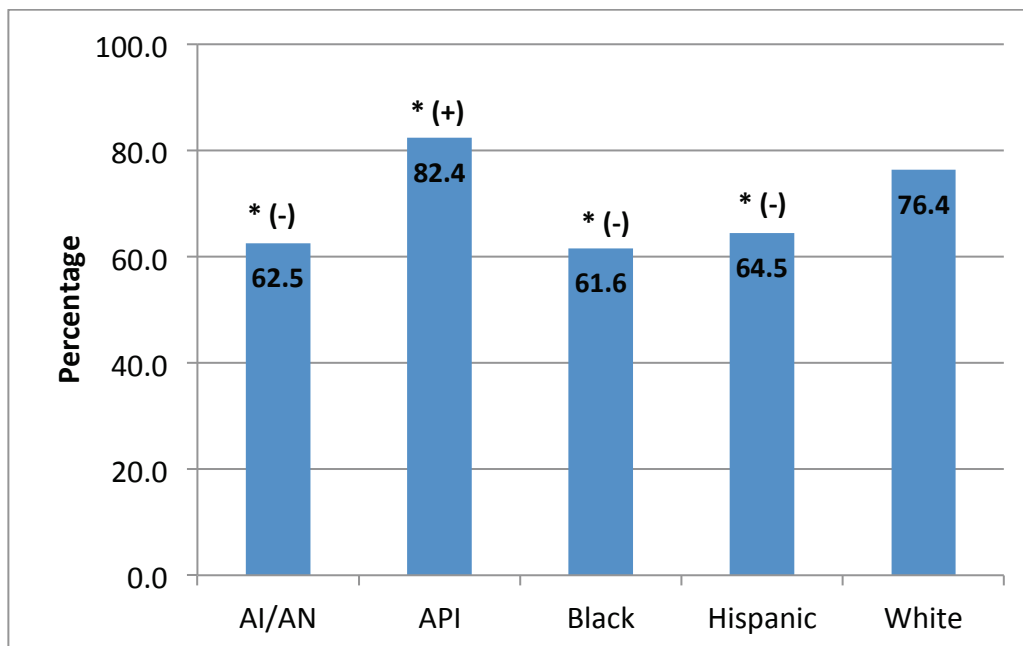
### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics reported more difficulty getting help and information about prescription drugs than did Whites. The difference between each of these groups and Whites was greater than 3 points on a 0-100 scale.
- In 2014, American Indians or Alaska Natives reported experiences getting help and information about prescription drugs that were similar to the experiences reported by Whites.



## Patient Experience: Annual Flu Vaccine

Percentage of Medicare enrollees who got a vaccine (flu shot), by race/ethnicity, 2014



**Data source:** Medicare Consumer Assessment of Healthcare Providers and Systems Survey, 2014

**Key:** AI/AN = American Indian or Alaska Native; API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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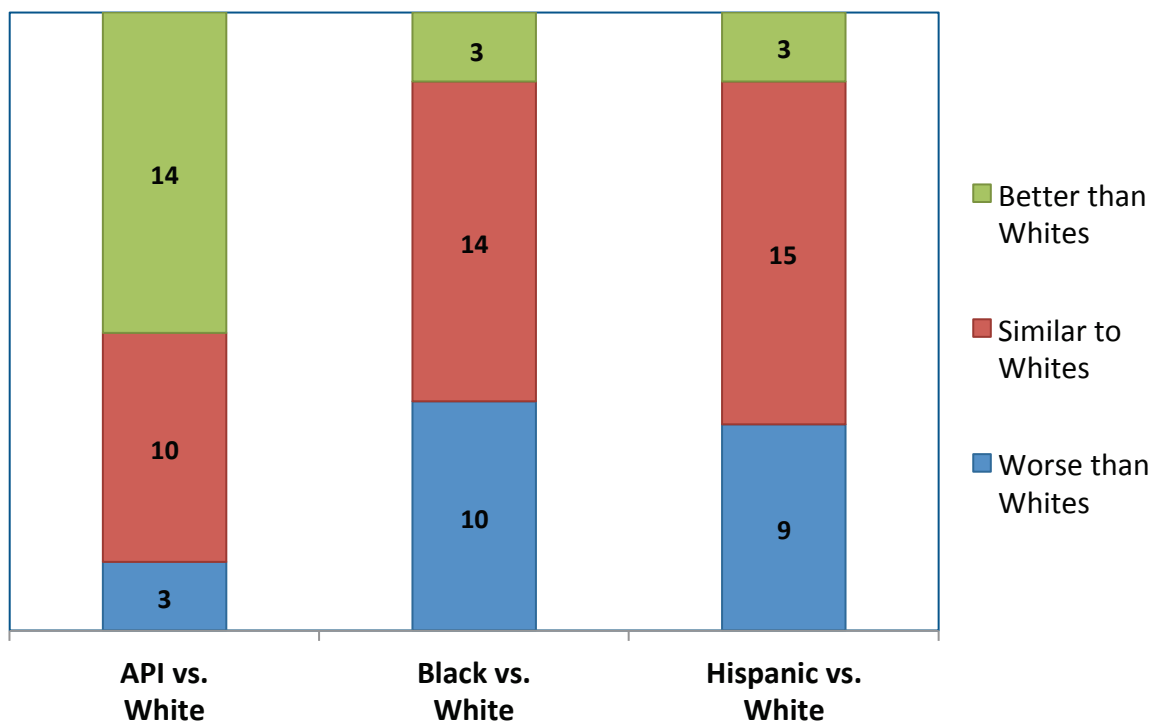
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders were more likely than Whites to have been vaccinated prior to the flu season. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks, Hispanics, and American Indians or Alaska Natives were less likely than Whites to have been vaccinated prior to the flu season. The difference between each of these groups and Whites was greater than 3 percentage points.

## Disparities in Care: All Clinical Care Measures

Number of clinical care measures (out of 27) for which members of selected groups experienced care that is worse than, similar to or better than the care experienced by Whites in 2014



**Data source:** Information in this chart is from clinical quality (HEDIS) data collected in 2014 from Medicare health plans nationwide.

**Key:** API = Asian or Pacific Islander

**Notes:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

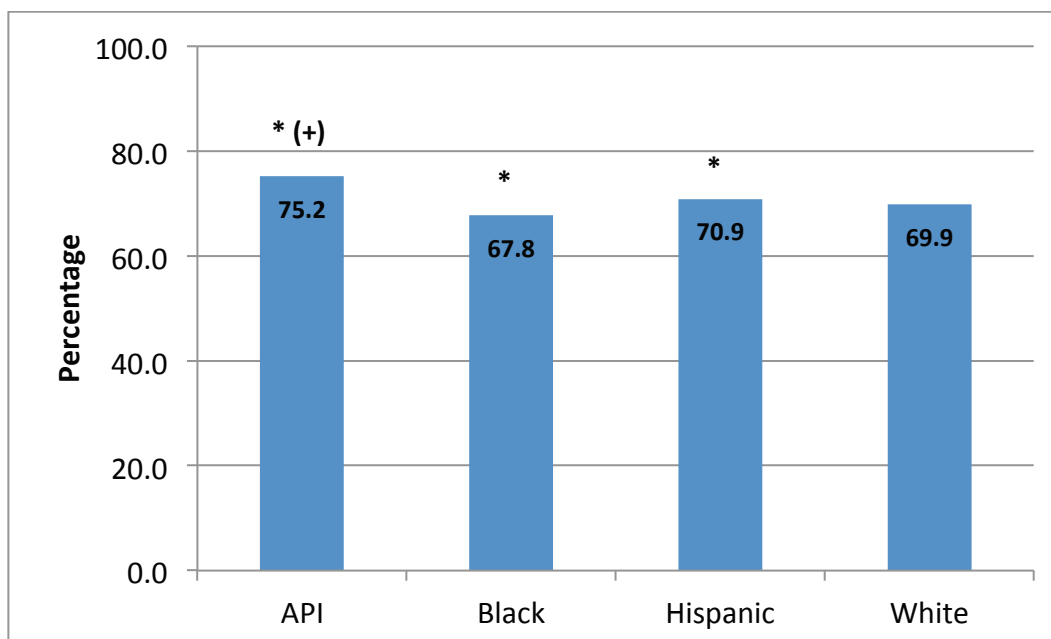
The relative difference between a selected group and Whites is used to assess disparities.

- **Better** = Population had better clinical care than Whites. Differences are statistically significant, are equal to or larger than 3 percentage points, and favor the selected racial/ethnic minority group.
- **Similar** = Population and Whites had similar clinical care. Differences are less than 3 percentage points. Differences may be statistically significant.
- **Worse** = Population had worse clinical care than Whites. Differences are statistically significant, are equal to or larger than 3 percentage points, and favor Whites.

**Example:** Compared with Whites, Hispanics had worse quality care for 9 of the 27 clinical care measures, similar quality care for 15 measures, and better quality care for 3 measures.

## Clinical Care: Colorectal Cancer Screening

Percentage of Medicare enrollees aged 50 to 75 who had appropriate screening for colorectal cancer, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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(-) Difference is equal to or larger than 3 points and favors Whites

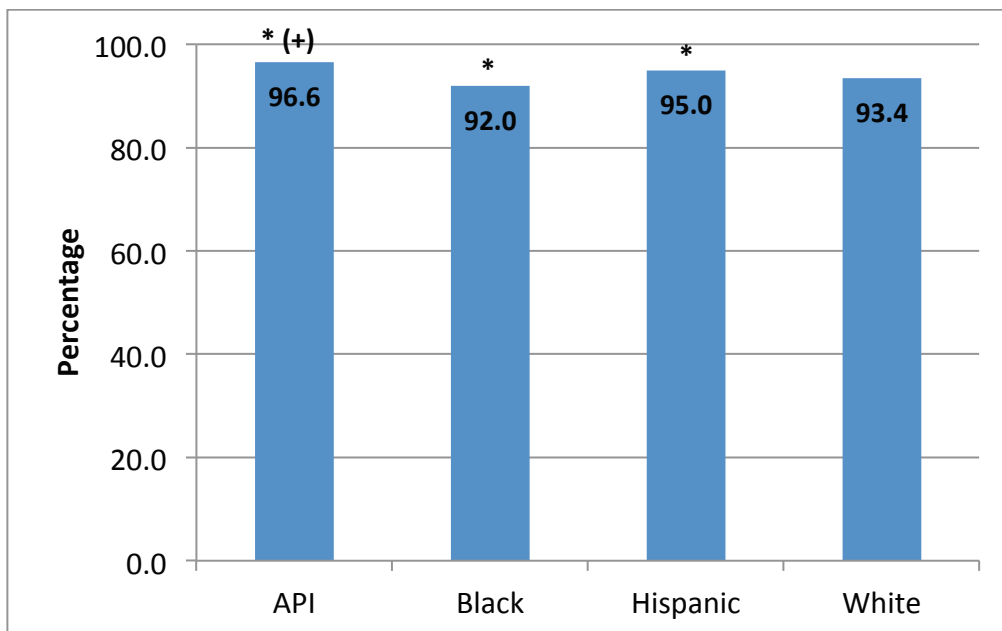
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics were more likely than Whites to have been appropriately screened for colorectal cancer. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2014, Blacks were less likely than Whites to have been appropriately screened for colorectal cancer. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Diabetes Care - Blood Sugar Testing

Percentage of Medicare enrollees aged 18–75 with diabetes who had one or more HbA1c tests in the past year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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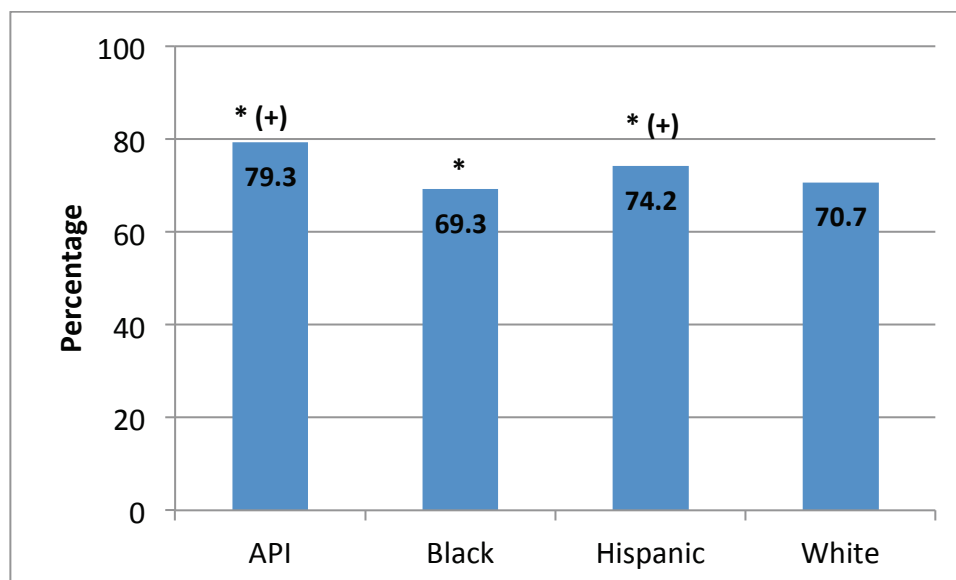
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2014, Blacks with diabetes were less likely than Whites with diabetes to have had their blood sugar tested at least once in the past year. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Diabetes Care – Eye Exam

Percentage of Medicare enrollees aged 18–75 with diabetes (type 1 and type 2) who had an eye exam (retinal) in the past year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

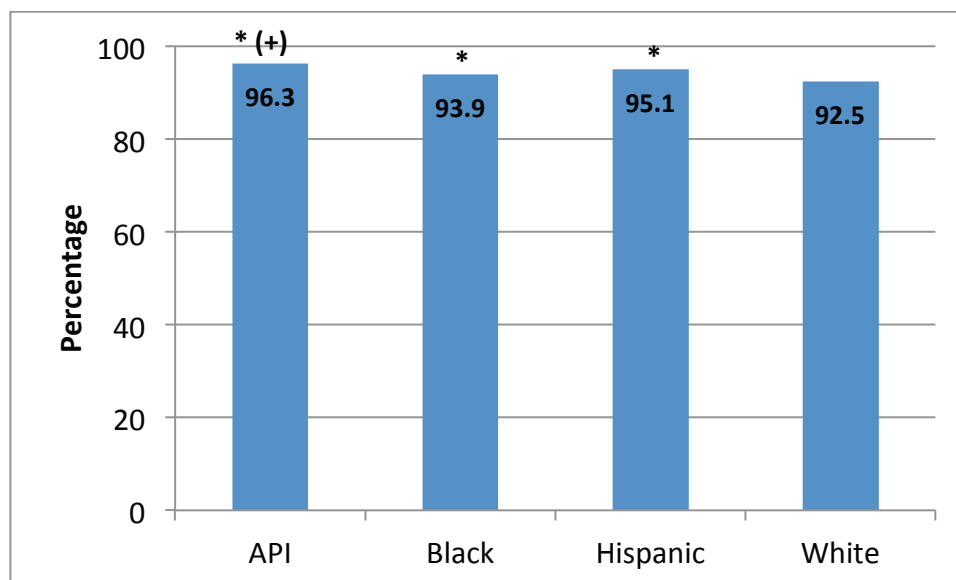
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have had an eye exam in the past year. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, Blacks with diabetes were less likely than Whites with diabetes to have had an eye exam in the past year. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Diabetes Care – Kidney Disease Monitoring

Percentage of Medicare enrollees aged 18–75 with diabetes (type 1 and type 2) who had medical attention for nephropathy in the past year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

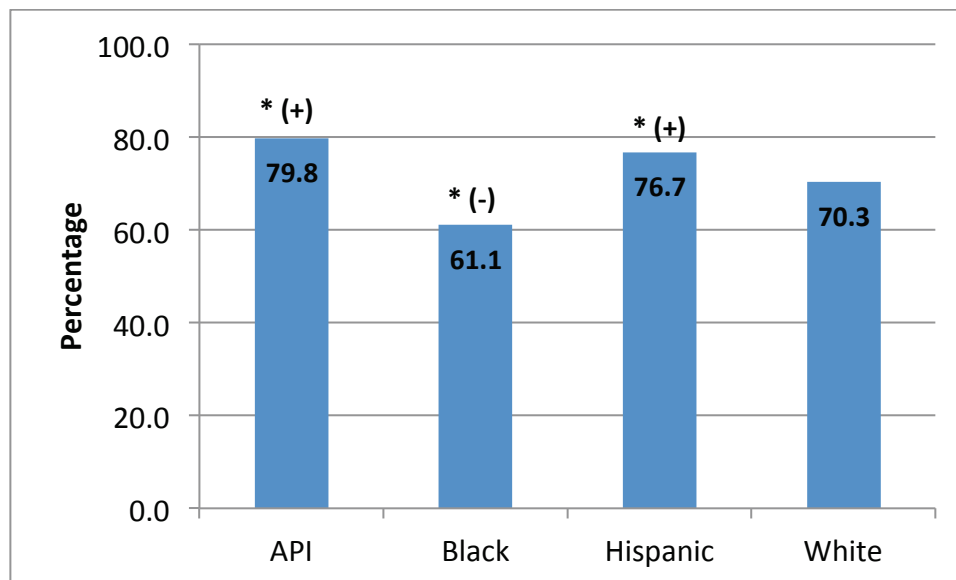
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics with diabetes were more likely than Whites with diabetes to have been screened for kidney disease in the past year. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Blacks and Whites and between Hispanics and Whites was less than 3 percentage points.

## Clinical Care: Diabetes Care – Blood Pressure Controlled

Percentage of Medicare enrollees aged 18 to 75 with diabetes whose most recent blood pressure was less than 140/90, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

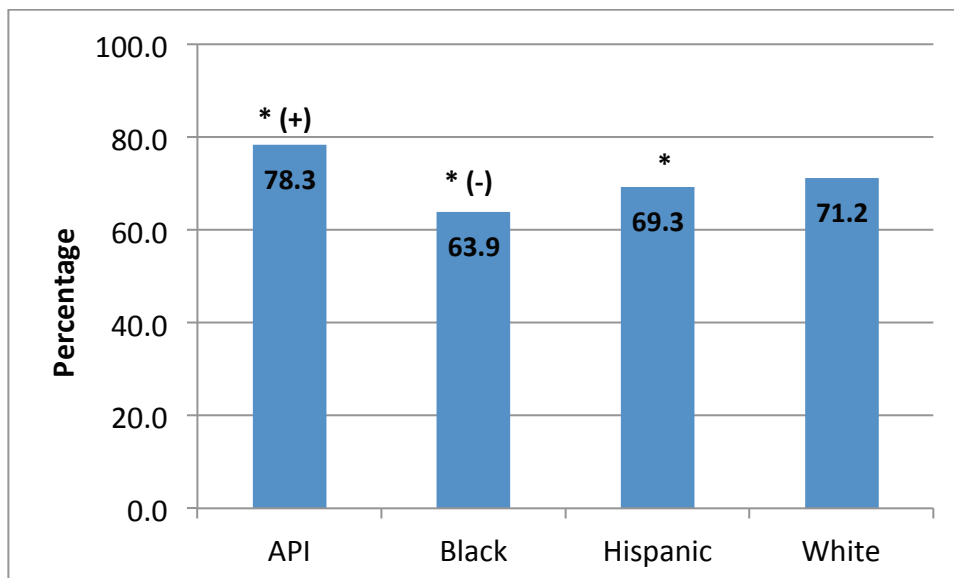
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics with diabetes were more likely than Whites with diabetes to have their blood pressure under control. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, Blacks with diabetes were less likely than Whites with diabetes to have their blood pressure under control. The difference between Blacks and Whites was greater than 3 percentage points.

## Clinical Care: Diabetes Care – Blood Sugar Controlled

Percentage of Medicare enrollees aged 18–75 with diabetes whose most recent HbA1c level was 9% or less, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

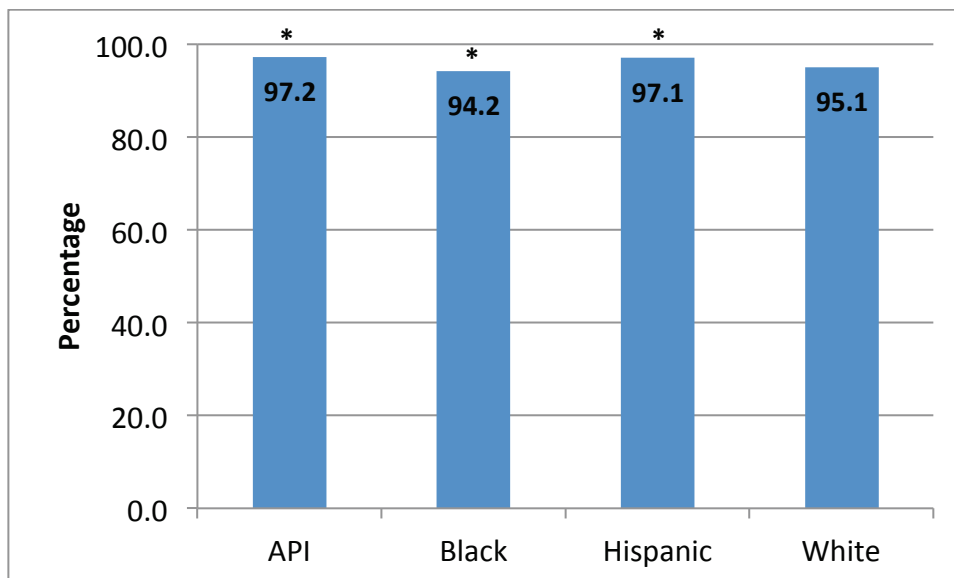
### Disparities

- In 2014, Asians or Pacific Islanders with diabetes were more likely than Whites with diabetes to have their blood sugar level under control. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks and Hispanics with diabetes were less likely than Whites with diabetes to have their blood sugar level under control. The difference between Blacks and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.



## Clinical Care: Adult BMI Assessment

Percentage of Medicare enrollees 18 to 74 years of age who had an outpatient visit and whose body mass index (BMI) was documented in the past two years, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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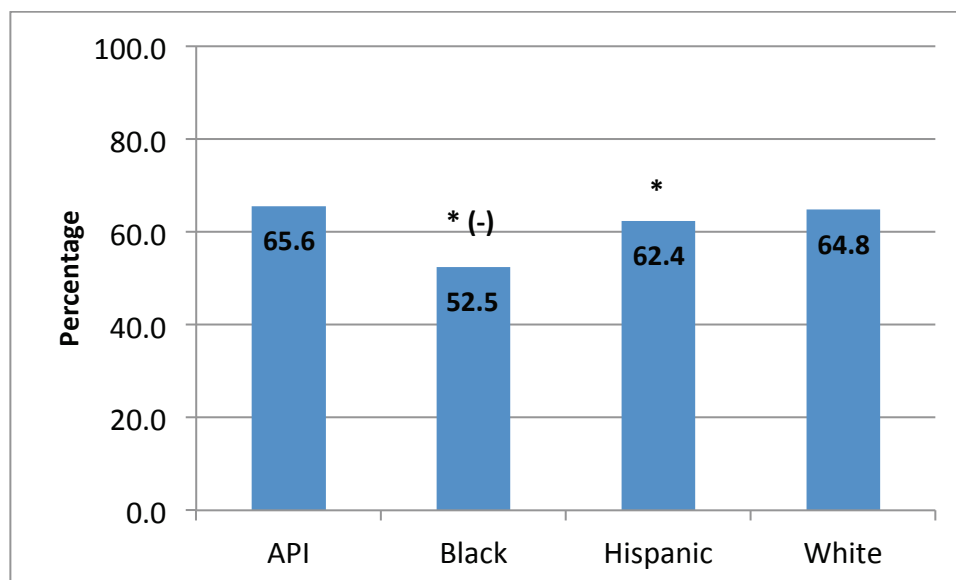
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics were more likely than Whites to have had their BMI documented. The difference between these groups and Whites was less than 3 percentage points.
- In 2014, Blacks were less likely than Whites to have had their BMI documented. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Controlling Blood Pressure

Percentage of Medicare enrollees 18–85 years of age who had a diagnosis of hypertension and whose blood pressure was adequately controlled<sup>†</sup> during the past year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

- (+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group
- (-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

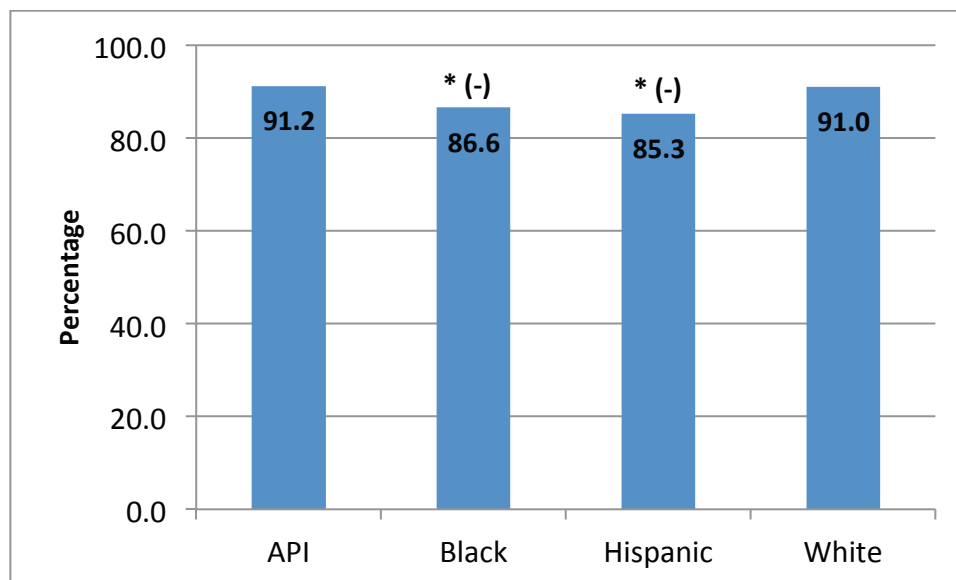
### Disparities

- In 2014, Blacks and Hispanics who had a diagnosis of hypertension were less likely than Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled. The difference between Blacks and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2014, Asians or Pacific Islanders who had a diagnosis of hypertension were as likely as Whites who had a diagnosis of hypertension to have had their blood pressure adequately controlled.

<sup>†</sup> Less than 140/90 for members 18-59 years of age and 60-85 years of age with a diagnosis of diabetes or less than 150/90 for members 60-85 years of age without a diagnosis of diabetes.

## Clinical Care: Continuous Beta-Blocker Treatment

Percentage of Medicare enrollees 18 years of age and older who were hospitalized and discharged alive with a diagnosis of acute myocardial infarction (AMI) and who received persistent beta-blocker treatment for six months after discharge, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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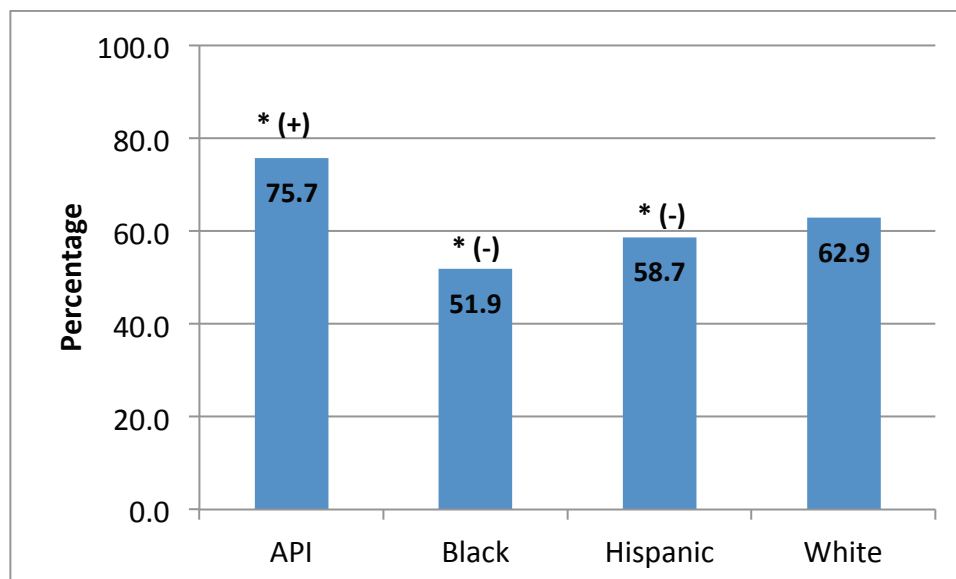
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Blacks and Hispanics who were hospitalized for a heart attack were less likely than Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, Asians or Pacific Islanders who were hospitalized for a heart attack were as likely as Whites who were hospitalized for a heart attack to have received persistent beta-blocker treatment.

## Clinical Care: Cholesterol Management for Patients with Cardiovascular Conditions

Percentage of Medicare enrollees aged 18 to 75 who were hospitalized for a heart attack, coronary artery bypass graft, or percutaneous coronary intervention or who had a diagnosis of ischemic vascular disease and whose cholesterol was adequately managed in the past year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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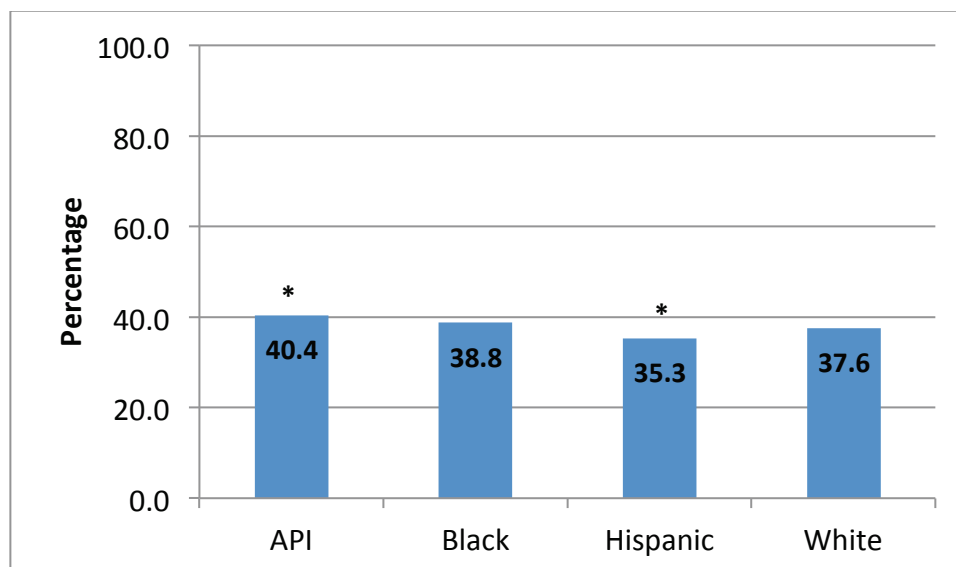
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders who had a cardiovascular condition were more likely than Whites who had a cardiovascular condition to have their cholesterol adequately managed. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks and Hispanics who had a cardiovascular condition were less likely than Whites who had a cardiovascular condition to have their cholesterol adequately managed. The difference between each of these groups and Whites was greater than 3 percentage points.

## Clinical Care: Testing to Confirm Chronic Obstructive Pulmonary Disease (COPD)

**Percentage of Medicare enrollees aged 40 or older with a new diagnosis of COPD or newly active COPD who received appropriate spirometry testing to confirm the diagnosis, by race/ethnicity, 2014**



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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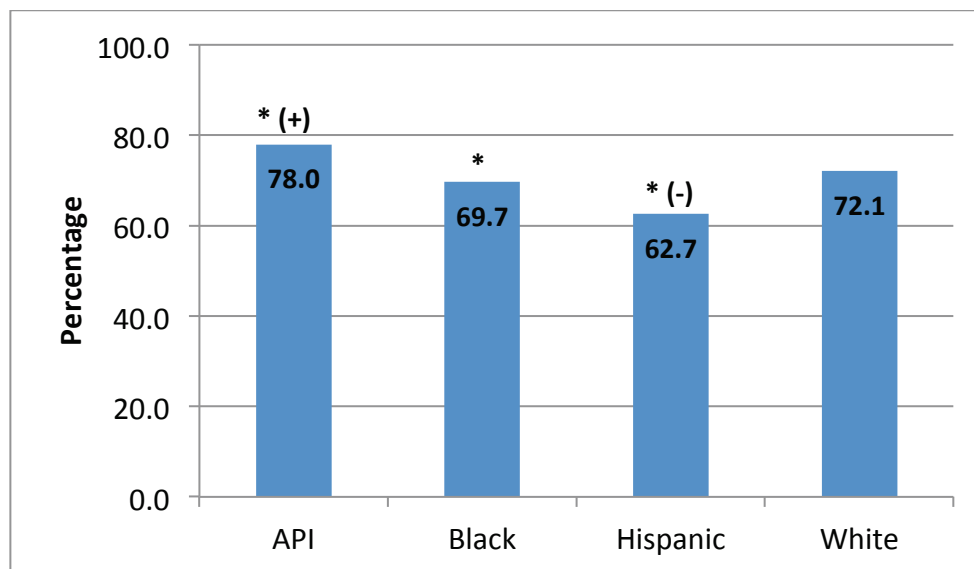
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders with a new diagnosis of COPD or newly active COPD were more likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- In 2014, Hispanics with a new diagnosis of COPD or newly active COPD were less likely than Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis. The difference between Hispanics and Whites was less than 3 percentage points.
- In 2014, Blacks with a new diagnosis of COPD or newly active COPD were as likely as Whites with a new diagnosis of COPD or newly active COPD to have received a spirometry test to confirm the diagnosis.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation - Systemic Corticosteroid

Percentage of COPD exacerbations for Medicare enrollees 40 years of age and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a systemic corticosteroid within 14 days of the event, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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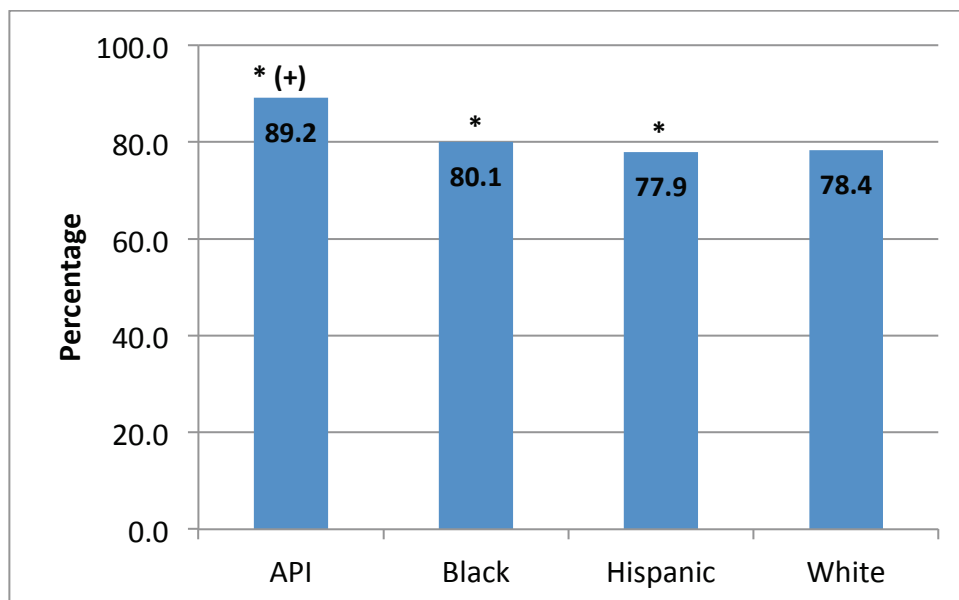
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks and Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a systemic corticosteroid within 14 days of the event. The difference between Blacks and Whites was less than 3 percentage points. The difference between Hispanics and Whites was greater than 3 percentage points.

## Clinical Care: Pharmacotherapy Management of COPD Exacerbation - Bronchodilator

Percentage of COPD exacerbations for Medicare enrollees 40 years of age and older who had an acute inpatient discharge or emergency department encounter in the past year and who were dispensed a bronchodilator within 30 days of experiencing the event, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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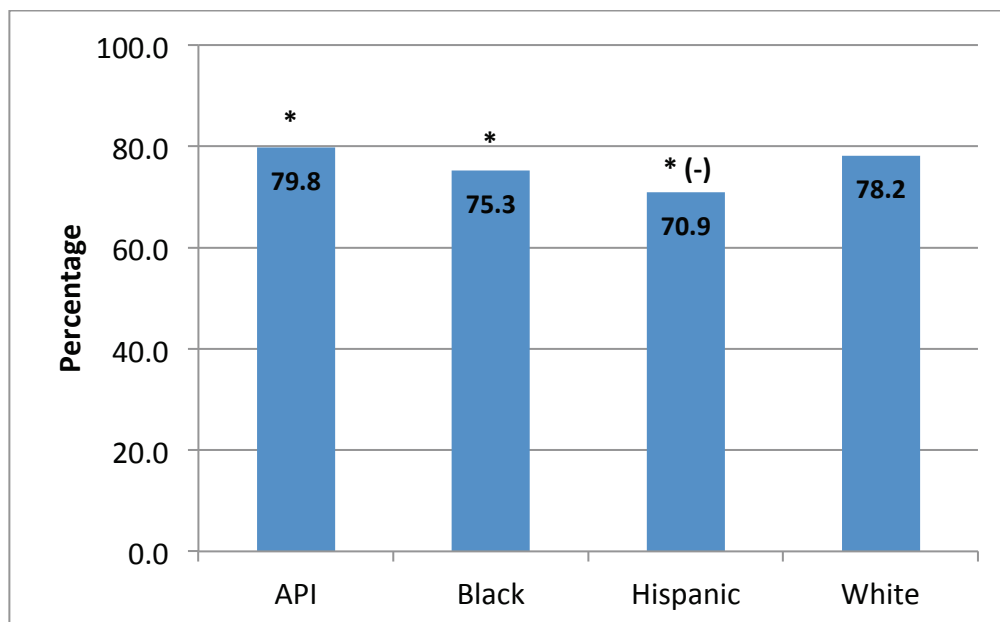
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Blacks who experienced a COPD exacerbation were more likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points. The difference between Blacks and Whites was less than 3 percentage points.
- In 2014, Hispanics who experienced a COPD exacerbation were less likely than Whites who experienced a COPD exacerbation to have been dispensed a bronchodilator within 30 days of the event. The difference between Hispanics and Whites was less than 3 percentage points.

## Clinical Care: Rheumatoid Arthritis Management

Percentage of Medicare enrollees who were diagnosed with rheumatic arthritis during the past year and who were dispensed at least one ambulatory prescription for a disease-modifying anti-rheumatic drug (DMARD), by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

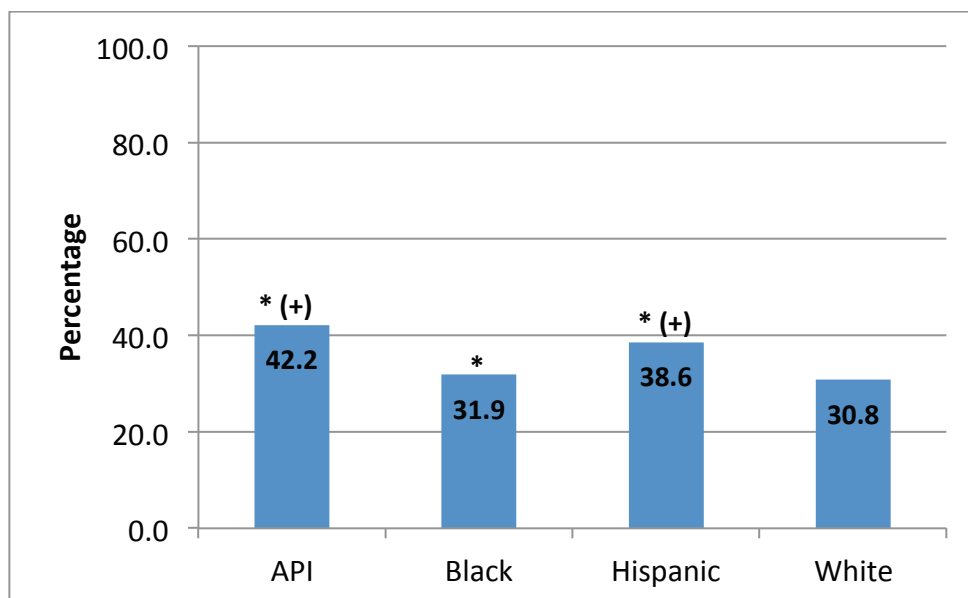
### Disparities

- In 2014, Asians or Pacific Islanders who were diagnosed with rheumatic arthritis were more likely than Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points.
- In 2014, Blacks and Hispanics who were diagnosed with rheumatic arthritis were less likely than Whites who were diagnosed with rheumatic arthritis to have been dispensed at least one DMARD. The difference between Blacks and Whites was less than 3 percentage points. The difference between Hispanics and Whites was greater than 3 percentage points.



## Clinical Care: Osteoporosis Management in Women Who Had a Fracture

Percentage of female Medicare enrollees aged 67 to 85 who suffered a fracture and who had either a bone mineral density test or prescription for a drug to treat osteoporosis in the six months after the fracture, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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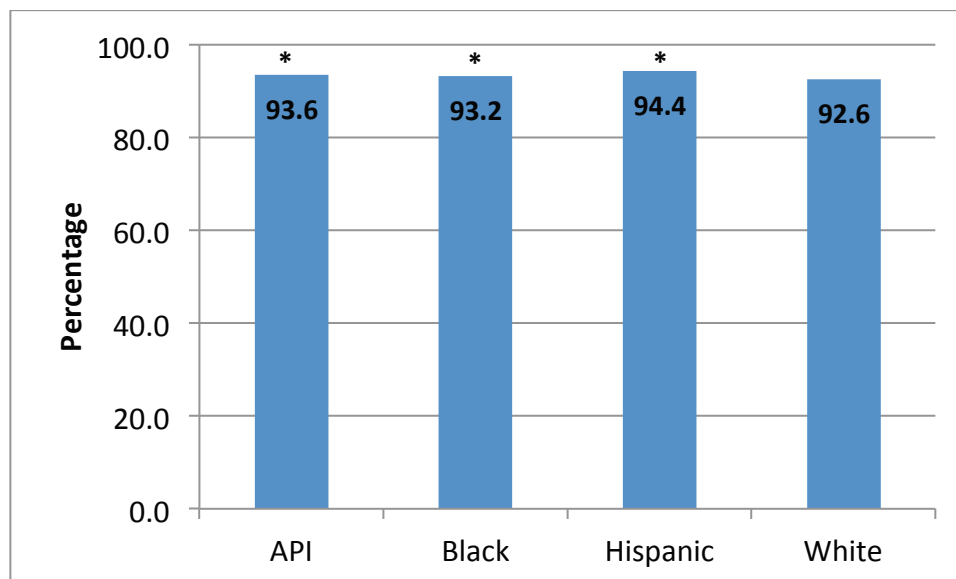
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islander, Black, and Hispanic women who suffered a fracture were more likely than White women who suffered a fracture to have had either a bone mineral density test or prescription for a drug to treat osteoporosis. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites. The difference between Blacks and Whites was less than 3 percentage points.

## Clinical Care: Appropriate Monitoring of Patients Taking Long-Term Medications

Percentage of Medicare enrollees 18 years of age and older who received at least 180 treatment days of ambulatory medication therapy for a selected therapeutic agent<sup>†</sup> during the past year and at least one therapeutic monitoring event for the therapeutic agent during the year, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

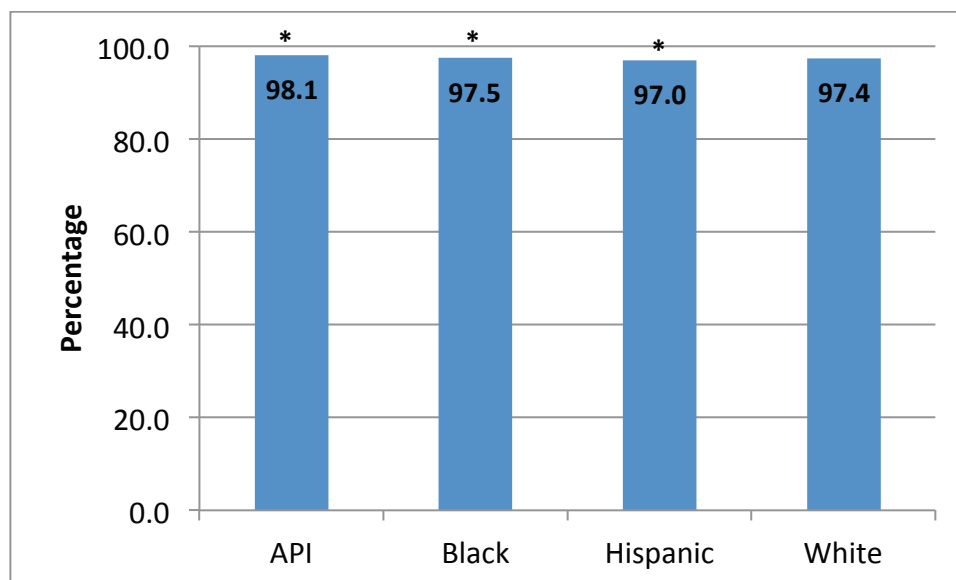
### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics were more likely than Whites to have had at least one appropriate follow up visit during the year to monitor their use of a higher-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.

<sup>†</sup> This measure is limited to those who had prescription to the following drugs for 6 months or longer: Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin Receptor Blockers (ARB), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Use of High-Risk Medications in the Elderly

Percentage of Medicare enrollees aged 65 and older who were not prescribed a high-risk medication†, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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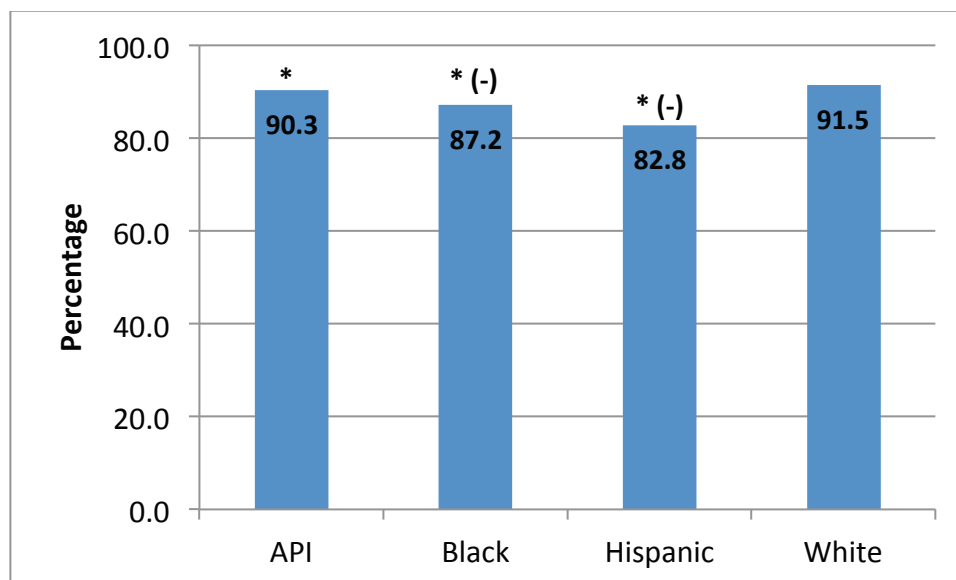
### Disparities

- In 2014, elderly Asians or Pacific Islanders and Blacks were more likely than elderly Whites to have not been prescribed a high-risk medication. The difference between each of these groups and Whites was less than 3 percentage points.
- In 2014, elderly Hispanics were less likely than elderly Whites to have not been prescribed a high-risk medication. The difference between Hispanics and Whites was less than 3 percentage points.

† This measure is limited to those who had prescription to the following drugs for 6 months or longer: Angiotensin Converting Enzyme (ACE) inhibitors, Angiotensin Receptor Blockers (ARB), digoxin, diuretics, anticonvulsants, and statins. These drugs are known to have possibly harmful side effects if used long term.

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Chronic Renal Failure

Percentage of Medicare enrollees aged 65 and older with chronic renal failure who were not dispensed a prescription for a potentially harmful medication†, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

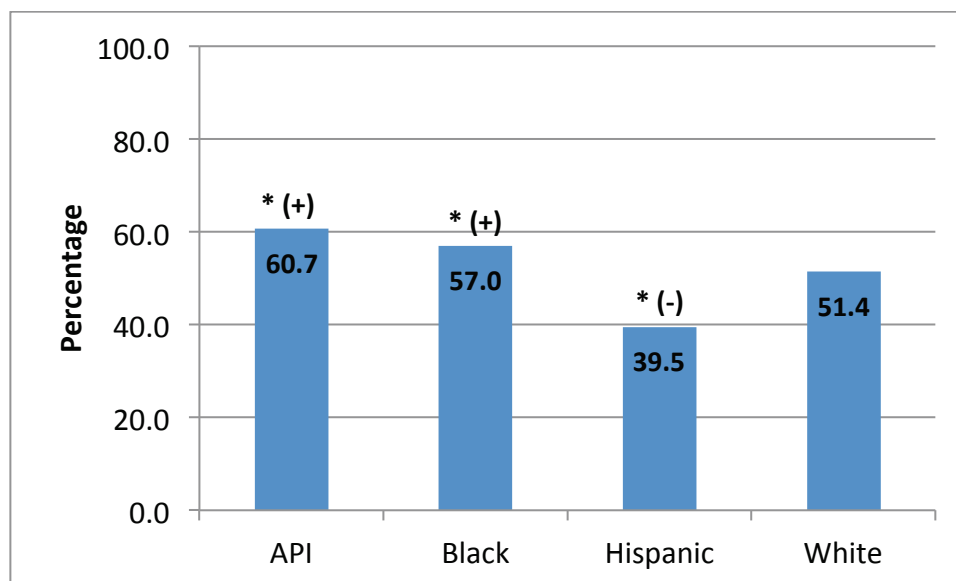
### Disparities

- In 2014, elderly Asians or Pacific Islanders, Blacks, and Hispanics with chronic renal failure were less likely than elderly Whites with chronic renal failure to have not been dispensed a potentially harmful medication. The difference between Asians or Pacific Islanders and Whites was less than 3 percentage points. The difference between Blacks and Whites was greater than 3 percentage points, as was the difference between Hispanics and Whites.

† Any of the following: cyclo-oxygenase (Cox)-2 selective nonsteroidal anti-inflammatory drugs (NSAIDs) or nonaspirin NSAIDs

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with Dementia

Percentage of Medicare enrollees aged 65 and older with dementia who were not dispensed a prescription for a potentially harmful medication†, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

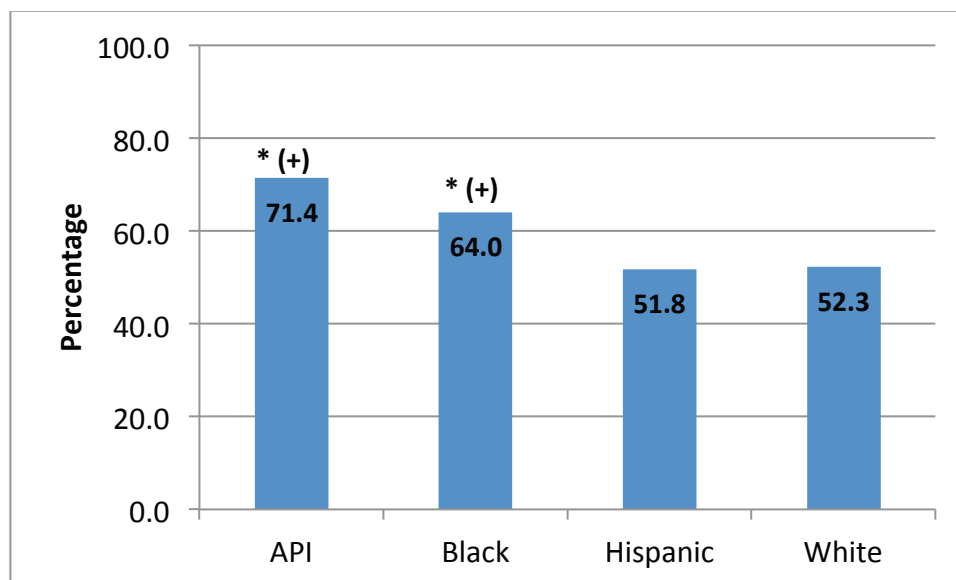
### Disparities

- In 2014, elderly Asians or Pacific Islanders and Blacks with dementia were more likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, elderly Hispanics with dementia were less likely than elderly Whites with dementia to have not been dispensed a potentially harmful medication. The difference between Hispanics and Whites was greater than 3 percentage points.

† Any of the following: antiemetics, antipsychotics, benzodiazepines, tricyclic antidepressants, H2 receptor antagonists, nonbenzodiazepine hypnotics or anticholinergic agents

## Clinical Care: Avoiding Potentially Harmful Drug-Disease Interactions in Elderly Patients with a History of Falls

Percentage of Medicare enrollees aged 65 and older with a history of falls who were not dispensed a prescription for a potentially harmful medication†, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

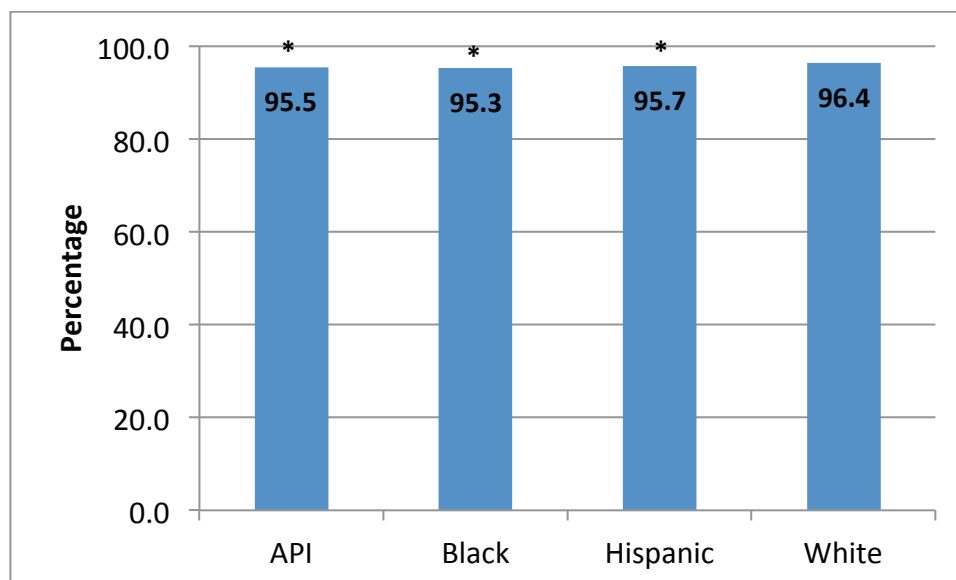
### Disparities

- In 2014, elderly Asians or Pacific Islanders and Blacks with a history of falls were more likely than elderly Whites with a history of falls to have not been dispensed a potentially harmful medication. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, elderly Hispanics with a history of falls were as likely as elderly Whites with a history of falls to have not been dispensed a potentially harmful medication.

† Any of the following: anticonvulsants, nonbenzodiazepine hypnotics, selective serotonin re-uptake inhibitors (SSRIs), antiemetics, antipsychotics, benzodiazepines or tricyclic antidepressants

## Clinical Care: Older Adults' Access to Preventive/Ambulatory Services

Percentage of Medicare enrollees aged 65 and older who had an ambulatory or preventive care visit, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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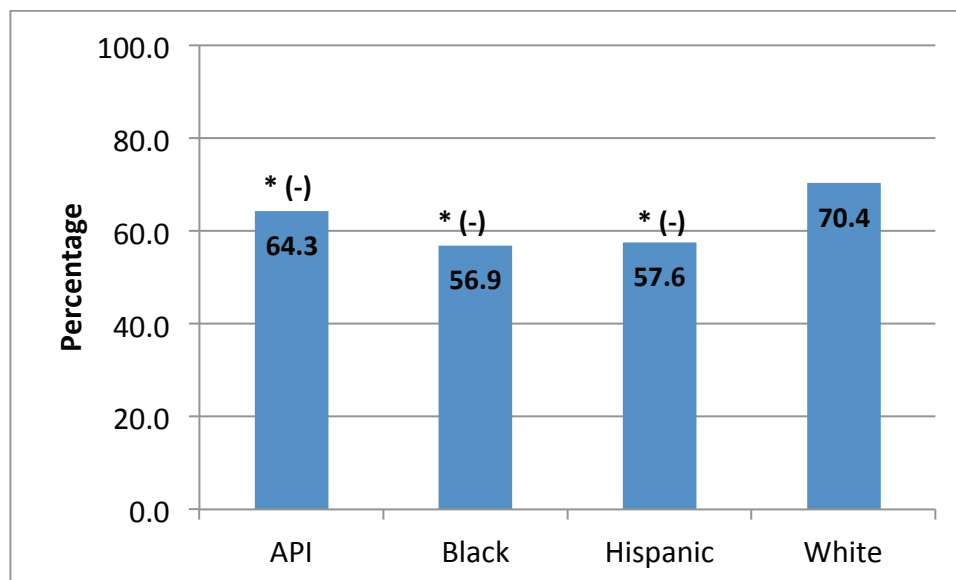
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics were less likely than Whites to have had an ambulatory or preventive care visit. The difference between each of these groups and Whites was less than 3 percentage points.

## Clinical Care: Antidepressant Medication Management – Acute Phase Treatment

**Percentage of Medicare enrollees aged 18 and older who were diagnosed with a new episode of major depression and remained on antidepressant medication for at least 84 days, by race/ethnicity, 2014**



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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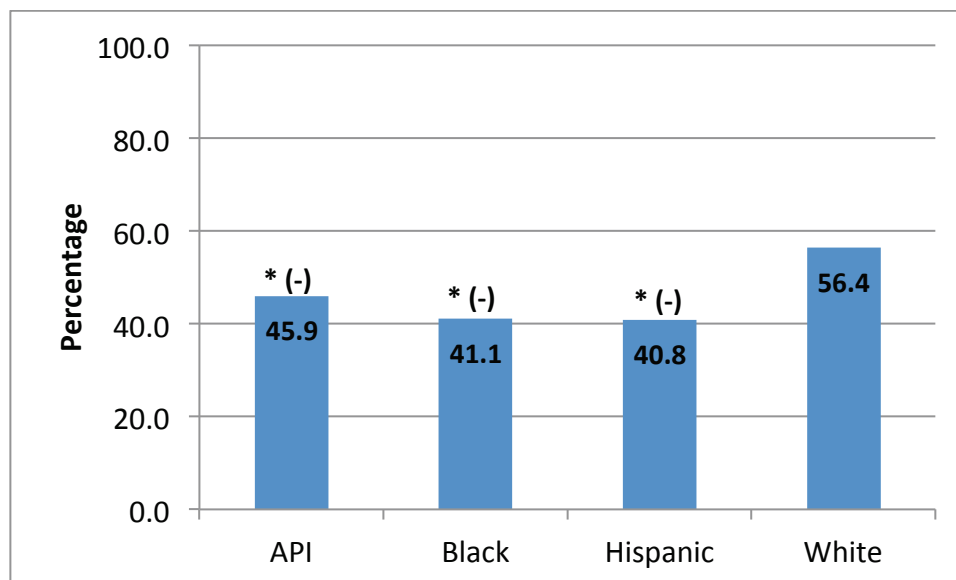
### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 84 days. The difference between each of these groups and Whites was greater than 3 percentage points.



## Clinical Care: Antidepressant Medication Management – Continuation Phase Treatment

**Percentage of Medicare enrollees aged 18 and older with a new diagnosis of major depression who were newly treated with antidepressant medication and who remained on an antidepressant medication treatment for at least 180 days, by race/ethnicity, 2014**



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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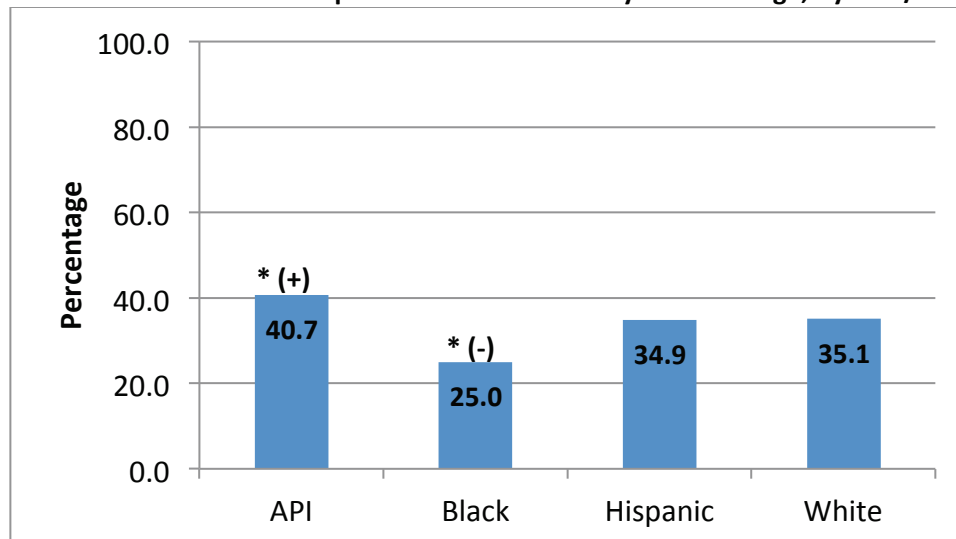
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders, Blacks, and Hispanics who were diagnosed with a new episode of major depression were less likely than Whites who were diagnosed with a new episode of major depression to have remained on antidepressant medication for at least 180 days. The difference between each of these groups and Whites was greater than 3 percentage points.

## Clinical Care: Follow-Up Visit after Hospital Stay for Mental Illness (within 7 days of discharge)

Percentage of Medicare enrollees aged 6 and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 7 days of discharge, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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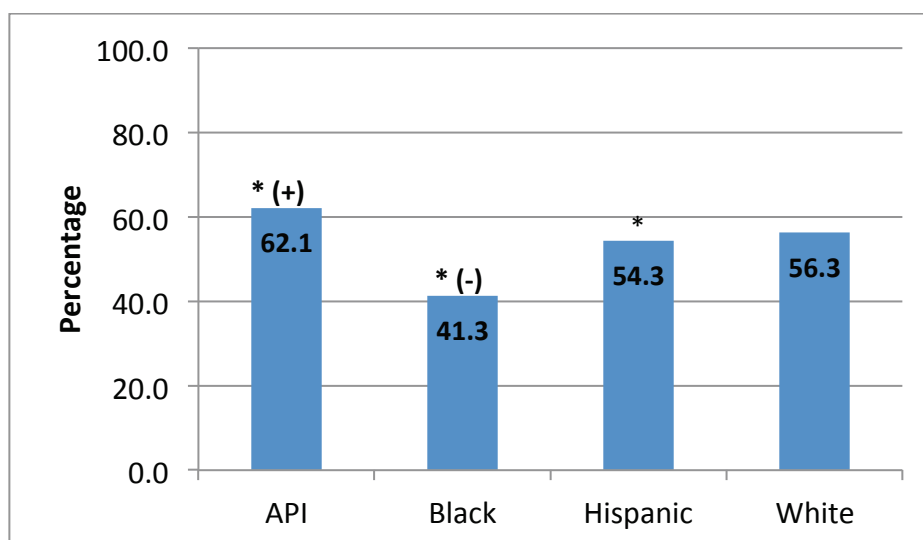
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders who were hospitalized for a mental disorder were more likely than Whites who were hospitalized for a mental disorder to have had a follow-up visit with a mental health practitioner within 7 days of being discharged. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks who were hospitalized for a mental disorder were less likely than Whites who were hospitalized for a mental disorder to have had a follow-up visit with a mental health practitioner within 7 days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points.
- In 2014, Hispanics who were hospitalized for a mental disorder were as likely as Whites who were hospitalized for a mental disorder to have had a follow-up visit with a mental health practitioner within 7 days of being discharged.

## Clinical Care: Follow-Up Visit after Hospital Stay for Mental Illness (within 30 days of discharge)

Percentage of Medicare enrollees aged 6 and older who were hospitalized for treatment of selected mental health disorders and who had an outpatient visit, an intensive outpatient encounter or partial hospitalization with a mental health practitioner within 30 days of discharge, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

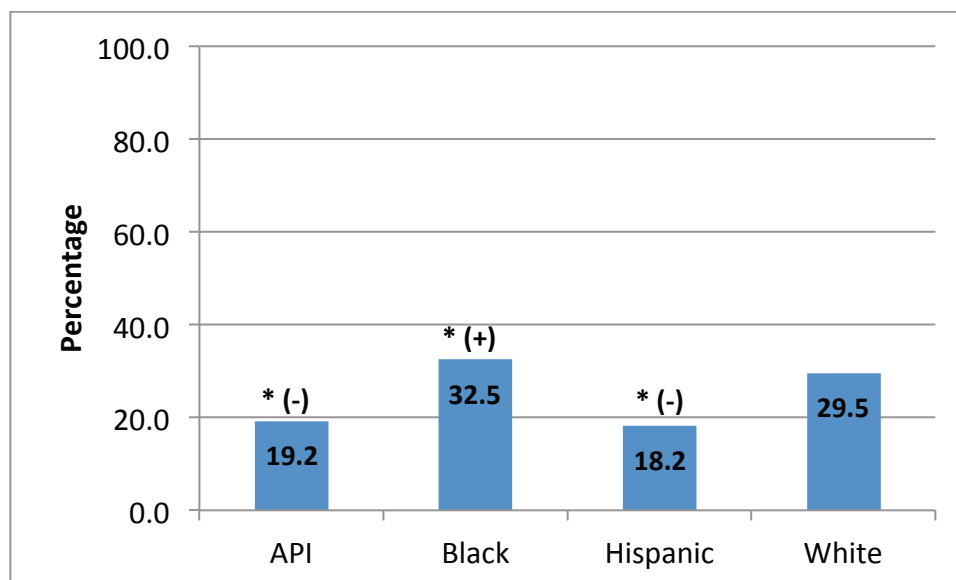
**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders who were hospitalized for a mental disorder were more likely than Whites who were hospitalized for a mental disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Asians or Pacific Islanders and Whites was greater than 3 percentage points.
- In 2014, Blacks and Hispanics who were hospitalized for a mental disorder were less likely than Whites who were hospitalized for a mental disorder to have had a follow-up visit with a mental health practitioner within 30 days of being discharged. The difference between Blacks and Whites was greater than 3 percentage points. The difference between Hispanics and Whites was less than 3 percentage points.

## Clinical Care: Initiation of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiate<sup>†</sup> treatment within 14 days of the diagnosis, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

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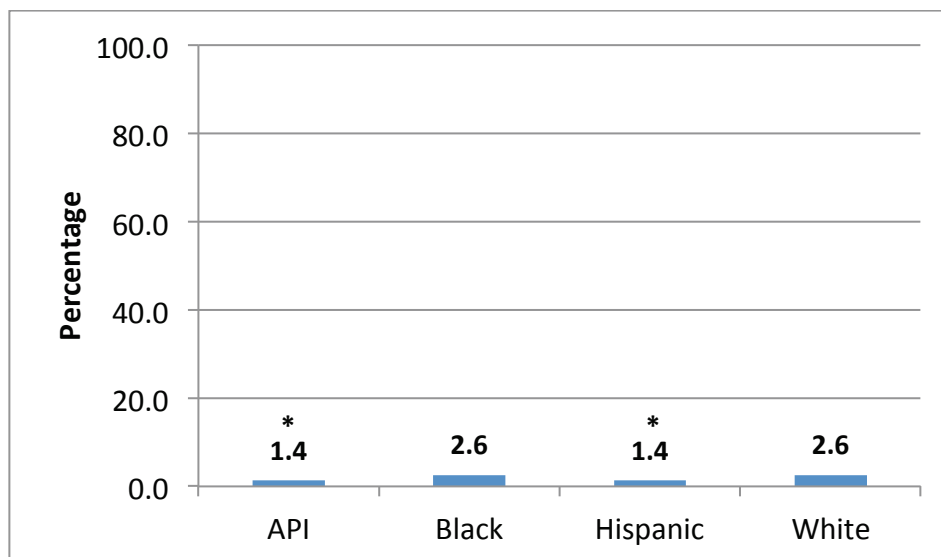
### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence were less likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between each of these groups and Whites was greater than 3 percentage points.
- In 2014, Blacks with a new episode of AOD dependence were more likely than Whites with a new episode of AOD dependence to have initiated treatment within 14 days of the diagnosis. The difference between Blacks and Whites was greater than 3 percentage points.

<sup>†</sup> Through an inpatient AOD admission, outpatient visit, intensive outpatient encounter or partial hospitalization

## Clinical Care: Engagement of Alcohol or Other Drug Treatment

Percentage of Medicare enrollees with a new episode of alcohol or drug (AOD) dependence who initiated treatment and who had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit, by race/ethnicity, 2014



**Data source:** Clinical quality data collected in 2014 from Medicare health plans nationwide

**Key:** API = Asian or Pacific Islander

\* Significantly different from the score for Whites ( $p < .05$ )

For differences that are statistically significant, the following symbols are also used when applicable:

(+) Difference is equal to or larger than 3 points and favors the racial/ethnic minority group

(-) Difference is equal to or larger than 3 points and favors Whites

**Note:** Racial groups such as Blacks and Whites are non-Hispanic, and Hispanic includes all races.

### Disparities

- In 2014, Asians or Pacific Islanders and Hispanics with a new episode of AOD dependence and who initiated treatment were less likely than Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit. The difference between each of these groups and Whites was less than 3 percentage points.
- In 2014, Blacks with a new episode of AOD dependence and who initiated treatment were as likely as Whites with a new episode of AOD dependence and who initiated treatment to have had two or more additional services with a diagnosis of AOD within 30 days of the initiation visit.

## **Frequently Asked Questions Reporting of National and Medicare Advantage Contract Level Quality Scores by Race and Ethnicity**

### **1. What is CMS announcing today?**

CMS is announcing the release of national level results for certain Medicare quality measures stratified by race and ethnicity for 2014, and Medicare Advantage (MA) contract level results stratified by race and ethnicity using the two most current years of pooled data (initial release combines 2013 and 2014). These reports will be available to the general public annually beginning with this release.

### **2. Why is CMS displaying this information?**

Despite advances in health care access, increases in spending, and improvements in quality over the last decade, there is well-documented evidence that members of racial and ethnic minority groups continue to experience worse health outcomes (2014 National Healthcare Quality and Disparities Report - <http://www.ahrq.gov/research/findings/nhqrdr/index.html>). To begin to comprehensively address and eliminate health disparities, it is first necessary to be able to measure and publicly report – in a standardized and systematic way – the nature and extent of these differences. Section 4302 of the Affordable Care Act (adding section 3101 to the Public Health Service Act) requires the reporting and public posting of these data on HHS websites as well as other dissemination strategies.

### **3. What do these data represent?**

The data presented indicate overall differences in the care that is delivered to Medicare beneficiaries who identify as Asian or Pacific Islander, Black/African American, Hispanic, or White. These are total differences, which include both within and between contract differences. That is, the differences include both differences between subgroups within a particular contract and differences that arise from varying quality levels across contracts for all enrollees.

### **4. How can MA contracts use this information to improve performance?**

The data presented here focus on the analysis, reporting, display, and dissemination of existing quality measures by MA contract, stratified by race and ethnicity. This activity provides information that will be useful for targeting quality improvement activities and resources, monitoring health and drug plan performance, and advancing the development of culturally and linguistically appropriate quality improvement interventions and strategies.

### **5. Are these results included in the MA and Part D Star Ratings Program?**

NO. This effort is entirely separate from the MA and Part D Star Ratings program. These scores are intended to be used for health and drug plan quality improvement and accountability purposes.

**6. Do the data presented in this release suggest that CMS' SES adjustment of C and D Star Ratings should have been larger or whether CMS should NOT have adjusted for SES?**

The data presented analyze HEDIS and CAHPS data as they are scored, with no adjustment to the HEDIS measures, and with CAHPS measures already case-mix adjusted for low income, dual eligibility, and other factors. These analyses examined racial/ethnic differences in HEDIS and CAHPS scores overall and by contract. The HEDIS analyses did not include any measure of SES. As such these analyses do not directly inform the adjustment of HEDIS measures for SES. The proportion of Medicare beneficiaries with low SES does differ across racial/ethnic groups, as well as across other demographic subgroups. The descriptive data in this release do not suggest that adjustment of Part C and D Star Ratings for SES is inappropriate. Additionally, research conducted by ASPE found that adding indicators of race/ethnicity to SES adjustment models for HEDIS measures used in the MA Star Ratings had little effect on the coefficients used for adjustment by SES.

**7. Why are the data shown by contract, rather than by plan?**

Data are shown by contract because CMS quality data are collected at the contract level.

**8. Do these results affect MA contract payments?**

NO. These results are not used for payment purposes of any sort. As required by the IMPACT Act of 2014, the HHS Office of the Assistant Secretary for Planning and Evaluation is examining the differential effect of a number of demographic variables, including race and ethnicity, on Medicare payment policy and the reporting of additional quality measures. Results are expected in 2017.

**9. Why is my MA contract not listed on the page that shows scores for a particular racial/ethnic minority group?**

We do not list MA contracts for which there is too little information to reliably report any of the measures of patient experience or clinical care for a particular racial and ethnic minority group. Having too little information to report does not mean that an MA contract did anything wrong, it means there is not enough information from the sample of members used for reporting at the time this report was generated.

**10. Why are there two separate files that present MA contract level data? How are the two files different?**

Both files contain information about the care that MA and Part D contracts gave to members in each of four racial and ethnic groups: Asian/Pacific Islanders, Blacks/African Americans, Hispanics, and Whites. The two data files contain the same information, but the information is organized differently in the "single-group" file than in the "multiple-group" file. The single-group file contains four separate tables, for members in each of four racial and ethnic groups. Each table describes how MA contracts differ in the care that they deliver to members who are Asian/Pacific Islander, Black/African American, Hispanic, or White. This file allows you to easily compare across MA contracts for a particular racial/ethnic group. The multiple-group file contains one table that shows contract by contract—how quality scores differ for each of the four racial and ethnic groups. This file allows you to compare across racial/ethnic groups by MA contract.

**11. If the score for a particular racial/ethnic minority group is lower than the score for Whites for a MA contract, what does that mean?**

For patient experience measures (not including the flu immunization measure, which is a clinical care measure included in the Medicare CAHPS Survey), a lower score for a particular racial/ethnic minority group means that members of that contract who are members of a particular racial/ethnic minority group reported worse experiences than members of that MA contract who are White after adjustment for other characteristics, such as age and education. Scores on clinical care measures, including the flu immunization measure, are not adjusted for these other characteristics. On clinical care measures, a lower score for a particular racial/ethnic minority group means that members of the MA contract who are members of that particular racial/ethnic minority group received worse care than members of that contract who are White.

**12. If a MA contract does not have a score for members who are in a particular racial/ethnic minority group, does that mean the MA contract doesn't have any or many members who are in that particular racial/ethnic minority group? Does it mean the MA contract has a low score for members who are in that particular racial/ethnic minority group?**

If an MA contract does not have a score for a particular racial/ethnic group, it means that there are not enough data on the experiences of that group to permit reliable reporting of scores for that group. It does not mean that the MA contract provided poor care to members of that group, or that the MA contract did anything wrong.

**13. Why are there so few Prescription Drug Plans (PDPs) with data for Asians/Pacific Islanders, Blacks/African Americans, and Hispanics?**

In order to have a reliable report of experience with a MA contract we need information from at least 100 members. To have a reliable report of experience with a PDP, we need information from at least 200 members. We need more members to reliably measure quality differences between PDPs because those differences tend to be smaller and harder to measure. Few PDPs meet the sample size requirement for reporting on Asians/Pacific Islanders, Blacks/African Americans, and Hispanics.

**14. Why are some scores reported with a footnote saying that the scores should be used with caution?**

Scores with this footnote have low reliability (0.6 to 0.7 on a scale that ranges from 0 to 1), which means that they may not be a precise measure of a contract's performance. Reliability measures the extent to which a contract's score accurately measures the difference in the performance of that contract from other contracts. Scores with high reliability (greater than 0.7) are reported with no footnote. Scores with very low reliability (below 0.6) are not reported. Scores reported with a footnote have low but not very low reliability. They fall in a "gray area" between precise and imprecise, which is why users are urged to be cautious when interpreting the scores. Scores with lower reliability typically are those based on fewer members' experiences or involve measures for which it is harder to distinguish performance across MA contracts.



**15. Why do the national data on disparities in patient experience and or clinical care contain information on American Indians and Alaska Natives but contract-level files do not?**

No MA contracts meet the sample size requirements for reporting on the quality of care provided to American Indians and Alaska Natives. Thus, that group is excluded from the contract-level data files.

**16. Why does my CAHPS vendor have a different score than what appears in these files?**

Any difference in the racial/ethnic group scores provided by CMS and similar reports provided by your vendor may be due to differences in the application of CAHPS data cleaning rules, vendor differences in how scores are calculated, vendor differences in determination of an eligible survey, or vendor assignment of race and ethnicity.

# BUILDING AN ORGANIZATIONAL RESPONSE TO HEALTH DISPARITIES



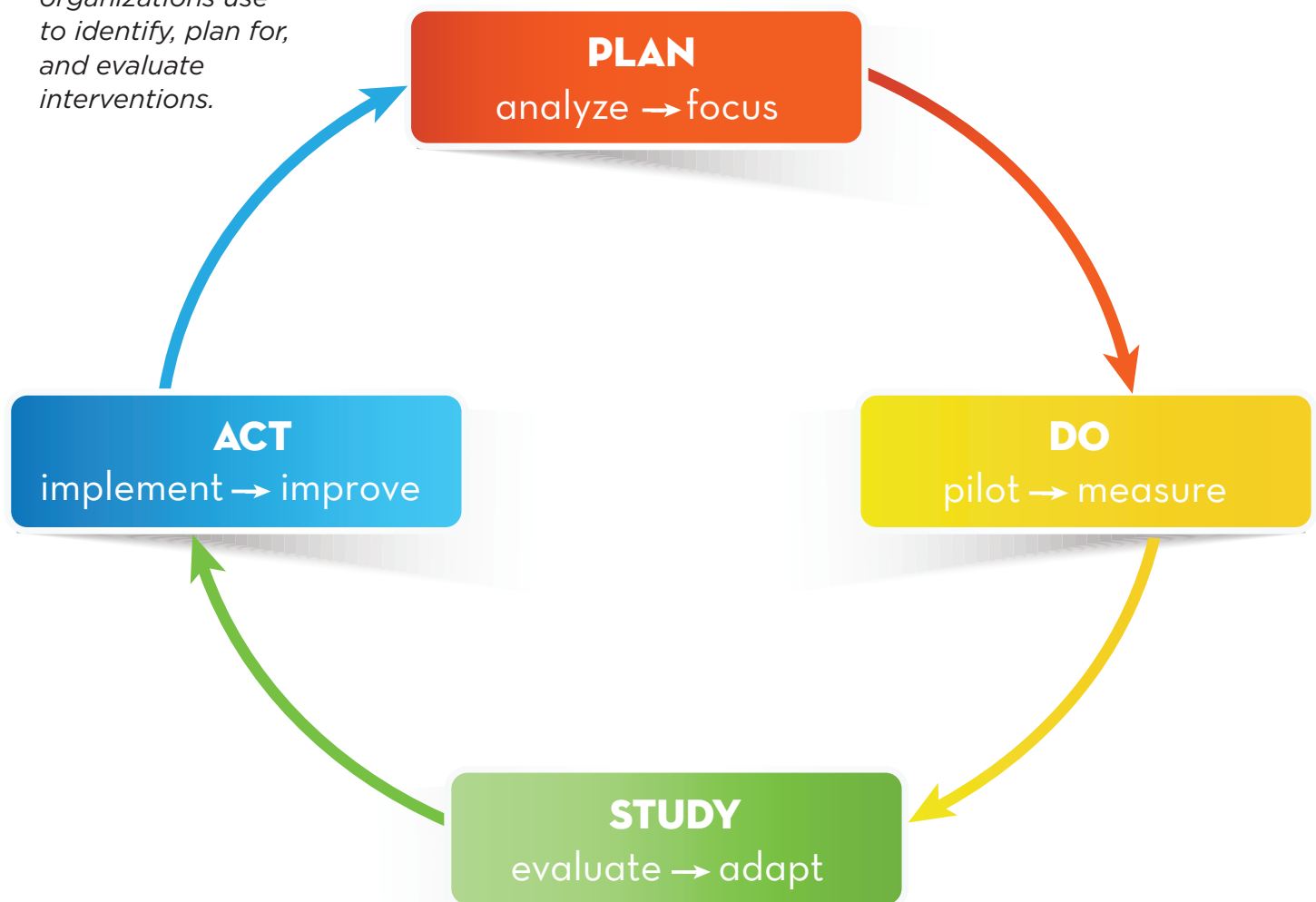
## TARGETED INTERVENTION: COLORECTAL CANCER SCREENING

This targeted intervention focuses on the HEDIS® measure of colorectal cancer screening, stratified by race and ethnicity, to demonstrate how to lower the costs and improve the quality of care for vulnerable Medicare, Medicaid, and dual-eligible beneficiaries. This approach will help you to prioritize your actions.



### **Plan-Do-Study-Act**

is a process that organizations use to identify, plan for, and evaluate interventions.



# PLAN-DO-STUDY-ACT

STEP	ACTIVITIES	INTERVENTION
<b>ANALYZE</b>	<ol style="list-style-type: none"> <li>1 Review <a href="#"><i>Building an Organizational Response to Health Disparities</i></a> to identify gaps in your approach to health equity activities.</li> <li>2 Review your contract level HEDIS and CAHPS measures stratified by race and ethnicity on <a href="#">the CMS website</a>.</li> <li>3 Review your internal data to answer questions, such as: <ul style="list-style-type: none"> <li>• Are your HEDIS measures stratified by language preference?</li> <li>• Are health disparities apparent when analyzing the data by geography, age, and gender?</li> <li>• How accessible are providers for each racial and ethnic group?</li> </ul> </li> <li>4 Share analysis findings with stakeholders to gather input.</li> </ol>	<ul style="list-style-type: none"> <li>• The QI team's assessment of colorectal cancer screening rates by race and language finds that: <ol style="list-style-type: none"> <li>1 42 percent of Black members ages 65-75 have been screened, the lowest rates of colorectal cancer screening among members.</li> <li>2 43 percent of members who have limited English proficiency (LEP) have been screened. These individuals represent diverse racial and ethnic groups.</li> </ol> </li> <li>• Doctors and nurses are telling their provider relations representative that they "don't know how to improve screening rates of minority and non-English speaking patients."</li> <li>• The QI team narrows the scope of its analysis to awareness of personal risks, understanding of the procedure, and barriers to scheduling the screening appointment.</li> </ul>
<b>FOCUS</b>	<p>This step assesses barriers and possible solutions by answering questions such as:</p> <ul style="list-style-type: none"> <li>• What can be addressed with the current organizational capacity?</li> <li>• What solutions did your stakeholders prioritize?</li> <li>• Which disparity will you focus on first?</li> </ul> <p>Collect information on and evaluate quality improvement efforts:</p> <ol style="list-style-type: none"> <li>1 What interventions have been piloted with the target population or in a similar community?</li> <li>2 Are there any significant geographic differences?</li> <li>3 How should you tailor these interventions?</li> </ol> <p>Design additional interventions that may address the identified problem(s).</p>	<p>The QI team received positive feedback from plan staff and providers on addressing these three barriers:</p> <ol style="list-style-type: none"> <li>1 Lack of awareness among members regarding personal risk for colorectal cancer.</li> <li>2 Concerns about the procedure.</li> <li>3 Confusion about scheduling the procedure and out-of-pocket cost.</li> </ol> <p>The goal is to raise awareness and to empower members to take action.</p> <ul style="list-style-type: none"> <li>• The brochure and conversation must be understandable to the member and occur in the member's preferred language.</li> <li>• Educational brochures will be mailed to members targeted for screening.</li> <li>• The health plan call center contacts members to raise awareness and schedule a procedure.</li> </ul>

# PLAN-DO-STUDY-ACT

STEP	ACTIVITIES	INTERVENTION
PILOT	<p>Pilots will measure success and reveal areas for improvement before widespread implementation.</p> <p>For pilot test:</p> <ul style="list-style-type: none"> <li>• Ensure the targeted intervention focuses on members impacted by the health disparity.</li> <li>• Work with providers that serve the target population.</li> <li>• Partner with regional staff to connect with hard-to-reach members.</li> </ul>	<p>The QI team selects a pilot market with a larger percentage of Black and LEP members.</p> <p>The pilot tested these steps:</p> <ol style="list-style-type: none"> <li><b>1</b> The team identifies Black and LEP members who have not been screened by stratifying administrative data.</li> <li><b>2</b> Educational brochures were mailed to at-risk members.</li> <li><b>3</b> The team called members to discuss risks, concerns, and confusion.</li> <li><b>4</b> Members that met <a href="#">medical criteria</a>, and agreed to be screened, were scheduled for a procedure.</li> <li><b>5</b> Members that did not meet medical criteria were referred to their provider.</li> <li><b>6</b> Members not reached were referred to a social worker team for a home visit.</li> </ol>
MEASURE	<p>Pilot data are collected to assess the feasibility and effectiveness of the intervention. Data sources include:</p> <ol style="list-style-type: none"> <li><b>1</b> Administrative data or information from electronic health records.</li> <li><b>2</b> Feedback on ways to improve member engagement and satisfaction.</li> <li><b>3</b> Defects in the implementation process.</li> </ol>	<p>The QI team collected the following data:</p> <ul style="list-style-type: none"> <li>• Screening rates before and after the pilot phase in the target population.</li> <li>• Objections members may have expressed.</li> <li>• Inaccurate phone numbers.</li> </ul>

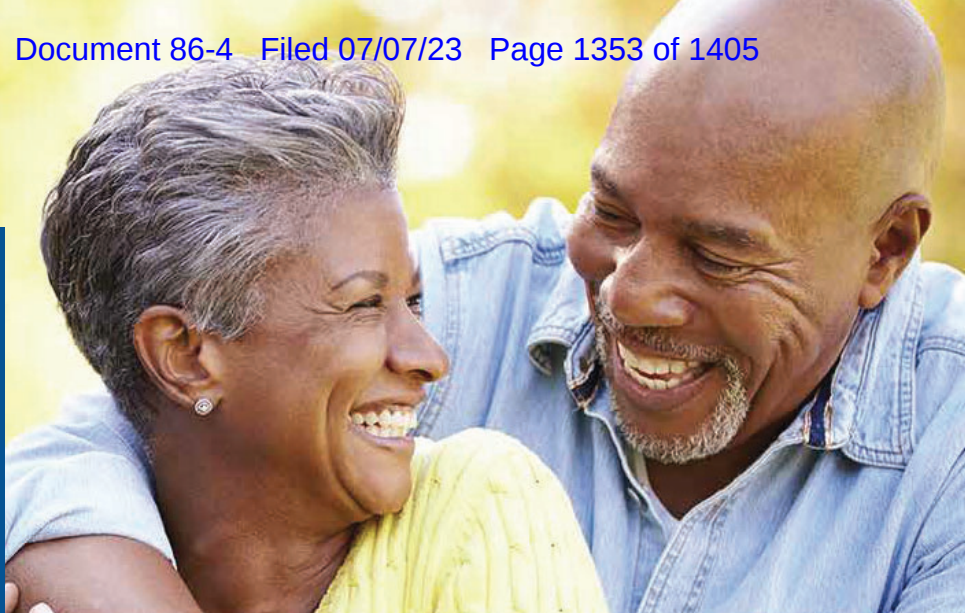
# PLAN-DO-STUDY-ACT

STEP	ACTIVITIES	INTERVENTION
EVALUATE	<p>Evaluate if the pilot achieved the intervention aim(s) by studying the process and outcomes. The goal is to understand three things:</p> <ol style="list-style-type: none"> <li>1 The size of the impact on the problem.</li> <li>2 If the pilot reduced the health disparity.</li> <li>3 How to improve the intervention.</li> </ol> <p>The following questions should guide the process evaluation:</p> <ul style="list-style-type: none"> <li>• What challenges emerged?</li> <li>• Did the intervention reach target members?</li> <li>• Was the pilot executed as planned? If not, what changed?</li> <li>• What did you learn?</li> </ul>	<p>Findings about the brochure and calls:</p> <ul style="list-style-type: none"> <li>• Members stated that they did not relate to the brochure, because it excluded racial and ethnic minorities.</li> <li>• Staff reported that the prevalence of inaccurate contact information and the lack of alternative phone numbers limited their success.</li> <li>• The pilot intervention increased colorectal cancer screening rates amongst Blacks and LEP members, which improved HEDIS rates.</li> <li>• Some members expressed increased satisfaction because the plan was proactive about helping them address risks.</li> </ul>
ADAPT	<p>Adapt the intervention to address problem areas prior to scaling the pilot. For example:</p> <ul style="list-style-type: none"> <li>• Update intervention goals.</li> <li>• Always communicate with members in their preferred language.</li> <li>• Monitor and address operational defects that impact vulnerable populations.</li> <li>• Recruit a diverse workforce.</li> </ul>	<p>The QI team adapted the intervention in the following ways:</p> <ol style="list-style-type: none"> <li>1 Brochures were translated into major languages spoken by members.</li> <li>2 Staff were trained to support a phone queue for members with LEP.</li> <li>3 The sales team instituted a phone number standard operating procedure (SOP) during enrollment.</li> <li>4 Plan recruited staff that spoke the prominent languages of the target population.</li> </ol> <p>The QI team presents results to the leadership to secure an executive sponsor and align the budget for large-scale intervention.</p> <p><b>Goal: zero health disparities between the colorectal screening rates of Black and White members and LEP and non-LEP members.</b></p>

# PLAN-DO-STUDY-ACT

STEP	ACTIVITIES	INTERVENTION
IMPLEMENT	<p>The implementation may include the following steps:</p> <ol style="list-style-type: none"> <li>1 Identify a provider and operations lead to champion the intervention.</li> <li>2 Strengthen workforce by training on best practices in reducing health disparities.</li> <li>3 Stratify QI and executive dashboards with REAL data to evaluate ongoing success of the intervention.</li> </ol>	<p>The adapted pilot was executed across all plan markets. These tactics increased its effectiveness:</p> <ol style="list-style-type: none"> <li>1 Members were encouraged to provide family member phone numbers to improve accuracy of contact information.</li> <li>2 Staff became proficient in using interpreter services.</li> <li>3 For members who could not be reached by phone, health plan social workers traveled to their homes for face-to-face conversation about colorectal cancer screening.</li> </ol>
IMPROVE	<p>There are many ways for an organization to improve its ability to reduce costly health disparities, such as:</p> <ul style="list-style-type: none"> <li>• Create a department or council focused on achieving health equity.</li> <li>• Identifying other health disparities by collecting disability, sexual orientation, and gender identity.</li> <li>• Aligning reports to monitor health equity throughout the organization.</li> <li>• Strengthening healthcare workforce by recruiting diverse staff.</li> <li>• Recruiting Advisory Boards from target population for continued quality improvement.</li> </ul>	<p>Leadership set aside a budget to create a Health Equity Solutions Department.</p> <ul style="list-style-type: none"> <li>• The quality improvement team added disability and sexual orientation questions to the members' health risk assessment.</li> <li>• Key reports were aligned to identify health disparities.</li> <li>• Health equity metrics were monitored and leaders were briefed on the success of the department.</li> <li>• The Health Equity Solutions Department worked with matrix partners to increase the staff and leadership diversity across the health plan.</li> <li>• The CAHPS team recruited a diverse Advisory Board to evaluate member feedback and satisfaction.</li> </ul>

# Disparities Impact Statement



This tool can be used by all health care stakeholders to achieve health equity for racial and ethnic minorities, people with disabilities, sexual and gender minorities, individuals with limited English proficiency, and rural populations.

## This worksheet has 5 steps:

- 1** Identify health disparities and priority populations
- 2** Define your goals
- 3** Establish your organization's health equity strategy
- 4** Determine what your organization needs to implement its strategy
- 5** Monitor and evaluate your progress

Health disparities—differences in health outcomes closely linked with social, economic, and environmental disadvantage—are often driven by the social conditions in which individuals live, learn, work, and play.

# STEP 1:

## Identify health disparities and priority populations

Use available data sources to help you identify and prioritize which population(s) and health disparities you want to address.

**Stratifying measures and health outcomes by race and ethnicity can help you get started.**



**What data can you use to identify health disparities and/or your priority population(s)?**

**What population(s) will you prioritize?**

**What health disparities do you want to address?**



# STEP 2:

## Define your goals

Using the information from **STEP 1**, set out what you aim to do, by when, and with whom.

### For example:

Implement a **Language Access Plan** for patients with limited English proficiency.

- Develop a high quality language access plan in Year 1 (short-term goal).
- Train 90% of staff on the language access plan in Year 2 (long-term goal).



## What do you want to improve or accomplish?

### *Short-term goal:*

---

### *Long-term goal:*

---

## STEP 3:

### Establish your organization's health equity strategy

List out the actions needed to achieve your **STEP 2** improvement goals.

**What specific actions are needed to achieve your organization's goals?**

*Actions to reach the short-term goal:*

---

*Actions to reach the long-term goal:*

---

# STEP 4:

## Determine what your organization needs to implement its health equity strategy

Identify the policy changes and resources needed to achieve your strategy from **STEP 3**. For example, more staff, leadership support, changes to policies, or investment in technology.

### Stakeholder Engagement Plan

Important: Develop a roadmap for how your team will engage and collaborate with internal and external partners.



## What policy changes and resources are needed to achieve your organization's goals?

*Resources you already have (assets):*

---

*Resources and/or policy changes you still need (deficits):*

---

## STEP 5:

### Monitor and evaluate your progress

Establish what you will measure and agree on a plan to track progress.

**Set your baseline: measure before you take action.**



**What measures can you use to track progress?**

*Visit the [CMS Measures Inventory](#) for ideas.*

---

**Who is responsible for the evaluation and how frequently will they provide updates?**

---

**Next: Complete the Action Plan to develop and implement a Disparities Action Statement.**

# ACTION PLAN

Fill out one for each improvement goal. Health Equity Technical Assistance is available for stakeholders completing the Disparities Impact Statement. Contact [HealthEquityTA@cms.hhs.gov](mailto:HealthEquityTA@cms.hhs.gov).

Health Equity Champion:

Executive Sponsor:

Date:

<b>Improvement Goal</b> What health disparity are you addressing and who is (are) your priority population(s)?		<b>Health Disparity:</b>		
<b>Priority Populations(s):</b>				
Goals	Action Steps	Resources & Key Stakeholders	Metrics	Measurable Outcomes/Impact
List out your short-term and long-term goals from Step 2. Add rows as needed.	List the action steps needed to achieve your goals.	List the resources needed to accomplish action steps, including key staff or stakeholders from the Stakeholder Engagement Plan.	What will you monitor? What data will you use to track progress and how often?	Consider the longer term outcomes: how will you evaluate the impact and sustainability of your actions?
<b>Short-Term Goal</b>				
<b>Long-Term Goal</b>				

## Racism and Health



### Racism is a Serious Threat to the Public's Health

Racism is a [system](#) —consisting of structures, policies, practices, and norms—that assigns value and determines opportunity based on the way people look or the color of their skin. This results in conditions that unfairly advantage some and disadvantage others throughout society.

Racism—both [interpersonal and structural](#)—negatively affects the mental and physical health of millions of people, preventing them from attaining their highest level of health, and consequently, affecting the health of our nation.

A growing body of research shows that centuries of racism in this country has had a profound and negative impact on communities of color. The impact is pervasive and deeply embedded in our society—affecting where one lives, learns, works, worships and plays and creating inequities in access to a range of social and economic benefits—such as housing, education, wealth, and employment. These conditions—often referred to as [social determinants of health](#)—are key drivers of health inequities within communities of color, placing those within these populations at greater risk for [poor health outcomes](#).

The data show that racial and ethnic minority groups, throughout the United States, experience higher rates of illness and death across a wide range of health conditions, including diabetes, hypertension, obesity, asthma, and heart disease, when compared to their White counterparts. Additionally, the life expectancy of non-Hispanic/Black Americans is four years lower than that of White Americans. The COVID-19 pandemic, and its [disproportionate impact](#) among racial and ethnic minority populations is another stark example of these enduring health disparities.

Racism also deprives our nation and the scientific and medical community of the full breadth of talent, [expertise, and perspectives](#) [\[1.5 MB, 208 Pages\]](#) needed to best address racial and ethnic health disparities.

To build a healthier America for all, we must confront the systems and policies that have resulted in the generational injustice that has given rise to racial and ethnic health inequities. We at CDC want to lead in this effort—both in the work we do on behalf of the nation's health and the work we do internally as an organization.

[Learn more about the Impact of Racism on our Nation's Health >>](#)



Confronting the impact of racism will not be easy...I know that we can do this if we work together. I certainly hope you will lean in and join me.

## CDC's Commitment to Addressing Racism as an Obstacle to Health Equity

At CDC, we are committed to ensuring every person has the opportunity to live a healthy life. To that end, CDC—as the nation's leading public health agency—has established this web portal, "Racism and Health" to serve as a hub for our activities, promote a public discourse on how racism negatively affects health and communicate potential solutions. Working with the broader public health community, we will serve as a catalyst to further investigate the impact of racism on health and efforts to achieve health equity for all.



### Science and Research

The **latest science** exploring the impact of racism on health



### CDC Efforts

**CDC's work** to address structural racism in the nation and strengthen diversity in our workplace



### Expert Perspectives

**Georges C. Benjamin, MD, MACP, FACP (E), FNAPA** – Eliminating Health Disparities

## Additional Resources

[NIH Ending Structural Racism](#) 

[American Public Health Association](#) 

[American Medical Association](#) 

[Harvard T.H. Chan School of Public Health](#) 

Page last reviewed: July 8, 2021



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## Site Menu



## You are here

[Home](#) » [Research & Training](#)

# ENDING STRUCTURAL RACISM

## Ending Structural Racism

- [For NIH Staff](#)
- [For NIH Extramural Applicants and Awardees](#)
- [Minority Health and Health Disparities Research](#)
- [Scientific Workforce Diversity](#)
- [UNITE](#)
- [Data Dashboard](#)



- [Events](#)
- [Advisory Groups](#)
- [UNITE Co-Chairs' Corner](#)
- [News and Notices](#)
- [UNITE-Related Funding Opportunities](#)
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**Listening Session Summaries**



[Learn more about The Power of an Inclusive Workplace Recognition Project](#)

The biomedical research enterprise is powered by people committed to scientific advancement and innovation to improve human health and reduce the burden of disease for all. NIH is committed to breaking down the barriers that prevent the full breadth of talent from contributing to the biomedical enterprise. The enterprise is strengthened when it harnesses the complete intellectual capital of the nation, bringing diverse perspectives, backgrounds, and skillsets to apply to complex problems. We recognize our efforts aimed at achieving scientific workforce diversity are hindered by organizational structures, systems, and policies that perpetuate exclusion and inequity based on race. Organizational structures, policies, practices, and social norms that perpetuate bias, prejudice, discrimination, and racism limit the pace of scientific progress.

Historical racism has led to the marginalization and oppression of Indigenous peoples, African Americans, Latinos, Asian Americans, Pacific Islanders, Native Hawaiians, and other communities of color. This discrimination has extended to sexual and gender minorities. Structural racism has resulted in persistent health disparities, poor health status, and premature mortality as demonstrated by the current disproportionate burden of morbidity and mortality from COVID-19. Within the biomedical research enterprise, structural and institutional racism has resulted in inequitable access to funding, training, and workforce opportunities. NIH is in a position of influence to contribute to positive, visible, and sustainable change to break the cycle of institutional racism with systems, policies, social norms, and practices that remove stereotypes and mitigate the pervasive effects of racism. We must practice science in a way that ensures employing the full breadth of talent and with

attention to any unintended consequences of our research that might amplify health disparities.

*“To those individuals in the biomedical research enterprise who have endured disadvantages due to structural racism, I am truly sorry. NIH is committed to instituting new ways to support diversity, equity, and inclusion, and identifying and dismantling any policies and practices at our own agency that may harm our workforce and our science.”*

— Francis S. Collins, M.D., Ph.D., NIH Director

NIH established the [UNITE initiative](#) to address structural racism and promote racial equity and inclusion at NIH and within the larger biomedical research enterprise. UNITE has five committees with the following specific aims:

U – Understanding stakeholder experiences through listening and learning

N – New research on health disparities, minority health, and health equity

I – Improving the NIH culture and structure for equity, inclusion, and excellence

T – Transparency, communication, and accountability with our internal and external stakeholders

E – Extramural research ecosystem: changing policy, culture, and structure to promote workforce diversity

As part of its overarching efforts to perform a broad, systematic self-evaluation to identify elements that may perpetuate structural racism and lead to a lack of diversity, equity, and inclusion within the NIH and the larger biomedical research community, UNITE plans to:

- Collect and share information on relevant past, ongoing, or planned activities of the Institutes and Centers to inform efforts that enhance equity, diversity, and inclusion within NIH and across the biomedical research community.
- Conduct listening sessions with internal and external stakeholders.
- Publish a Request for Information to seek input on practical and effective ways to improve the racial and ethnic inclusivity and diversity of research-centered environments and workforce.
- Work with the NIH Division of Program Coordination, Planning, and Strategic Initiatives to develop a strategic plan to address racial, ethnic, and gender disparities at NIH.

NIH's efforts are consistent with President Joe Biden's [Executive Order on Advancing Racial Equity and Support for Underserved Communities](#)([link is external](#)) and is part of an overall effort by the Department of Health and Human Services to respond to the EO to improve equity, diversity, and inclusion in the federal workplace.

This webpage directs users to key information and websites that describe NIH's efforts to redress structural racism and promote racial equity and inclusion.

## NIH Offices Involved in Racial Equity and Inclusion

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[NIH Office of Equity, Diversity, and Inclusion](#)

[NIH Office of Human Resources](#)

[NIH Civil Program](#)

[NIH Scientific Workforce Diversity Office](#)

[NIH Office of Extramural Research](#)

[NIH Office of Intramural Research](#)

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- [En Español](#)

- [Site Map](#)

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- [Frequently Asked Questions](#)

- [Privacy Policy](#)

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- [Accessibility](#)

- [NIH Website Archives](#)

- [Freedom of Information Act](#)

- [No Fear Act](#)

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[U.S. Department of Health and Human Services](#)



# National Standards for Culturally and Linguistically Appropriate Services (CLAS) in Health and Health Care

The National CLAS Standards are intended to advance health equity, improve quality, and help eliminate health care disparities by establishing a blueprint for health and health care organizations to:

## Principal Standard:

1. Provide effective, equitable, understandable, and respectful quality care and services that are responsive to diverse cultural health beliefs and practices, preferred languages, health literacy, and other communication needs.

## Governance, Leadership, and Workforce:

2. Advance and sustain organizational governance and leadership that promotes CLAS and health equity through policy, practices, and allocated resources.
3. Recruit, promote, and support a culturally and linguistically diverse governance, leadership, and workforce that are responsive to the population in the service area.
4. Educate and train governance, leadership, and workforce in culturally and linguistically appropriate policies and practices on an ongoing basis.

## Communication and Language Assistance:

5. Offer language assistance to individuals who have limited English proficiency and/or other communication needs, at no cost to them, to facilitate timely access to all health care and services.
6. Inform all individuals of the availability of language assistance services clearly and in their preferred language, verbally and in writing.
7. Ensure the competence of individuals providing language assistance, recognizing that the use of untrained individuals and/or minors as interpreters should be avoided.
8. Provide easy-to-understand print and multimedia materials and signage in the languages commonly used by the populations in the service area.

## Engagement, Continuous Improvement, and Accountability:

9. Establish culturally and linguistically appropriate goals, policies, and management accountability, and infuse them throughout the organization's planning and operations.
10. Conduct ongoing assessments of the organization's CLAS-related activities and integrate CLAS-related measures into measurement and continuous quality improvement activities.
11. Collect and maintain accurate and reliable demographic data to monitor and evaluate the impact of CLAS on health equity and outcomes and to inform service delivery.
12. Conduct regular assessments of community health assets and needs and use the results to plan and implement services that respond to the cultural and linguistic diversity of populations in the service area.
13. Partner with the community to design, implement, and evaluate policies, practices, and services to ensure cultural and linguistic appropriateness.
14. Create conflict and grievance resolution processes that are culturally and linguistically appropriate to identify, prevent, and resolve conflicts or complaints.
15. Communicate the organization's progress in implementing and sustaining CLAS to all stakeholders, constituents, and the general public.



# The Case for the National CLAS Standards

Health equity is the attainment of the highest level of health for all people.<sup>1</sup> Currently, individuals across the United States from various cultural backgrounds are unable to attain their highest level of health for several reasons, including the social determinants of health, or those conditions in which individuals are born, grow, live, work, and age,<sup>2</sup> such as socioeconomic status, education level, and the availability of health services.<sup>3</sup>

Though health inequities are directly related to the existence of historical and current discrimination and social injustice, one of the most modifiable factors is the lack of culturally and linguistically appropriate services, broadly defined as care and services that are respectful of and responsive to the cultural and linguistic needs of all individuals.

Health inequities result in disparities that directly affect the quality of life for all individuals. Health disparities adversely affect neighborhoods, communities, and the broader society, thus making the issue not only an individual concern but also a public health concern. In the United States, it has been estimated that the combined cost of health disparities and subsequent deaths due to inadequate and/or inequitable care is \$1.24 trillion.<sup>4</sup>

Culturally and linguistically appropriate services are increasingly recognized as effective in improving the quality of care and services.<sup>5,6</sup> By providing a structure to implement culturally and linguistically appropriate services, the National CLAS Standards will improve an organization's ability to address health care disparities.

The National CLAS Standards align with the HHS Action Plan to Reduce Racial and Ethnic Health Disparities<sup>7</sup> and the National Stakeholder Strategy for Achieving Health Equity,<sup>8</sup> which aim to promote health equity through providing clear plans and strategies to guide collaborative efforts that address racial and ethnic health disparities across the country.

Similar to these initiatives, the National CLAS Standards are intended to advance health equity, improve quality, and help eliminate health care disparities by providing a blueprint for individuals and health and health care organizations to implement culturally and linguistically appropriate services. Adoption of these Standards will help advance better health and health care in the United States.

**Of all the forms of inequality, injustice in health care is the most shocking and inhumane.**

— Dr. Martin Luther King, Jr.

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## BRIEFING ROOM

# Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government

JANUARY 20, 2021 • PRESIDENTIAL ACTIONS

By the authority vested in me as President by the Constitution and the laws of the United States of America, it is hereby ordered:

**Section 1. Policy.** Equal opportunity is the bedrock of American democracy, and our diversity is one of our country's greatest strengths. But for too many, the American Dream remains out of reach. Entrenched disparities in our laws and public policies, and in our public and private institutions, have often denied that equal opportunity to individuals and communities. Our country faces converging economic, health, and climate crises that have exposed and exacerbated inequities, while a historic movement for justice has highlighted the unbearable human costs of systemic racism. Our Nation deserves an ambitious whole-of-government equity agenda that matches the scale of the opportunities and challenges that we face.

It is therefore the policy of my Administration that the Federal Government should pursue a comprehensive approach to advancing equity for all, including people of color and others who have been historically underserved, marginalized, and adversely affected by persistent poverty and inequality. Affirmatively advancing equity, civil rights, racial justice, and equal opportunity is the responsibility of the whole of our Government. Because advancing equity requires a systematic approach to embedding fairness in decision-making processes, executive departments and agencies (agencies) must recognize and work to redress inequities in their policies and programs that serve as barriers to equal opportunity.

By advancing equity across the Federal Government, we can create opportunities for the improvement of communities that have been historically underserved, which benefits everyone. For example, an analysis shows that closing racial gaps in wages, housing credit, lending opportunities, and access to higher education would amount to an additional \$5 trillion in gross domestic product in the American economy over the next 5 years. The Federal Government's goal in advancing equity is to provide everyone with the opportunity to

2265

reach their full potential. Consistent with these aims, each agency must assess whether, and to what extent, its programs and policies perpetuate systemic barriers to opportunities and benefits for people of color and other underserved groups. Such assessments will better equip agencies to develop policies and programs that deliver resources and benefits equitably to all.

**Sec. 2. Definitions.** For purposes of this order: (a) The term “equity” means the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.

(b) The term “underserved communities” refers to populations sharing a particular characteristic, as well as geographic communities, that have been systematically denied a full opportunity to participate in aspects of economic, social, and civic life, as exemplified by the list in the preceding definition of “equity.”

**Sec. 3. Role of the Domestic Policy Council.** The role of the White House Domestic Policy Council (DPC) is to coordinate the formulation and implementation of my Administration’s domestic policy objectives. Consistent with this role, the DPC will coordinate efforts to embed equity principles, policies, and approaches across the Federal Government. This will include efforts to remove systemic barriers to and provide equal access to opportunities and benefits, identify communities the Federal Government has underserved, and develop policies designed to advance equity for those communities. The DPC-led interagency process will ensure that these efforts are made in coordination with the directors of the National Security Council and the National Economic Council.

**Sec. 4. Identifying Methods to Assess Equity.** (a) The Director of the Office of Management and Budget (OMB) shall, in partnership with the heads of agencies, study methods for assessing whether agency policies and actions create or exacerbate barriers to full and equal participation by all eligible individuals. The study should aim to identify the best methods, consistent with applicable law, to assist agencies in assessing equity with respect to race, ethnicity, religion, income, geography, gender identity, sexual orientation, and disability.

(b) As part of this study, the Director of OMB shall consider whether to recommend that agencies employ pilot programs to test model assessment tools and assist agencies in doing

so.

(c) Within 6 months of the date of this order, the Director of OMB shall deliver a report to the President describing the best practices identified by the study and, as appropriate, recommending approaches to expand use of those methods across the Federal Government.

**Sec. 5. Conducting an Equity Assessment in Federal Agencies.** The head of each agency, or designee, shall, in consultation with the Director of OMB, select certain of the agency's programs and policies for a review that will assess whether underserved communities and their members face systemic barriers in accessing benefits and opportunities available pursuant to those policies and programs. The head of each agency, or designee, shall conduct such review and within 200 days of the date of this order provide a report to the Assistant to the President for Domestic Policy (APDP) reflecting findings on the following:

- (a) Potential barriers that underserved communities and individuals may face to enrollment in and access to benefits and services in Federal programs;
- (b) Potential barriers that underserved communities and individuals may face in taking advantage of agency procurement and contracting opportunities;
- (c) Whether new policies, regulations, or guidance documents may be necessary to advance equity in agency actions and programs; and
- (d) The operational status and level of institutional resources available to offices or divisions within the agency that are responsible for advancing civil rights or whose mandates specifically include serving underrepresented or disadvantaged communities.

**Sec. 6. Allocating Federal Resources to Advance Fairness and Opportunity.** The Federal Government should, consistent with applicable law, allocate resources to address the historic failure to invest sufficiently, justly, and equally in underserved communities, as well as individuals from those communities. To this end:

- (a) The Director of OMB shall identify opportunities to promote equity in the budget that the President submits to the Congress.
- (b) The Director of OMB shall, in coordination with the heads of agencies, study strategies, consistent with applicable law, for allocating Federal resources in a manner that increases investment in underserved communities, as well as individuals from those communities. The Director of OMB shall report the findings of this study to the President.

**Sec. 7. Promoting Equitable Delivery of Government Benefits and Equitable**

**Opportunities.** Government programs are designed to serve all eligible individuals. And Government contracting and procurement opportunities should be available on an equal basis to all eligible providers of goods and services. To meet these objectives and to enhance compliance with existing civil rights laws:

- (a) Within 1 year of the date of this order, the head of each agency shall consult with the APDP and the Director of OMB to produce a plan for addressing:
  - (i) any barriers to full and equal participation in programs identified pursuant to section 5(a) of this order; and
  - (ii) any barriers to full and equal participation in agency procurement and contracting opportunities identified pursuant to section 5(b) of this order.
- (b) The Administrator of the U.S. Digital Service, the United States Chief Technology Officer, the Chief Information Officer of the United States, and the heads of other agencies, or their designees, shall take necessary actions, consistent with applicable law, to support agencies in developing such plans.

**Sec. 8. Engagement with Members of Underserved Communities.** In carrying out this order, agencies shall consult with members of communities that have been historically underrepresented in the Federal Government and underserved by, or subject to discrimination in, Federal policies and programs. The head of each agency shall evaluate opportunities, consistent with applicable law, to increase coordination, communication, and engagement with community-based organizations and civil rights organizations.

**Sec. 9. Establishing an Equitable Data Working Group.** Many Federal datasets are not disaggregated by race, ethnicity, gender, disability, income, veteran status, or other key demographic variables. This lack of data has cascading effects and impedes efforts to measure and advance equity. A first step to promoting equity in Government action is to gather the data necessary to inform that effort.

(a) Establishment. There is hereby established an Interagency Working Group on Equitable Data (Data Working Group).

(b) Membership.

(i) The Chief Statistician of the United States and the United States Chief Technology Officer shall serve as Co-Chairs of the Data Working Group and coordinate its work. The Data

Working Group shall include representatives of agencies as determined by the Co-Chairs to be necessary to complete the work of the Data Working Group, but at a minimum shall include the following officials, or their designees:

- (A) the Director of OMB;
  - (B) the Secretary of Commerce, through the Director of the U.S. Census Bureau;
  - (C) the Chair of the Council of Economic Advisers;
  - (D) the Chief Information Officer of the United States;
  - (E) the Secretary of the Treasury, through the Assistant Secretary of the Treasury for Tax Policy;
  - (F) the Chief Data Scientist of the United States; and
  - (G) the Administrator of the U.S. Digital Service.
- (ii) The DPC shall work closely with the Co-Chairs of the Data Working Group and assist in the Data Working Group's interagency coordination functions.
- (iii) The Data Working Group shall consult with agencies to facilitate the sharing of information and best practices, consistent with applicable law.
- (c) Functions. The Data Working Group shall:
- (i) through consultation with agencies, study and provide recommendations to the APDP identifying inadequacies in existing Federal data collection programs, policies, and infrastructure across agencies, and strategies for addressing any deficiencies identified; and
  - (ii) support agencies in implementing actions, consistent with applicable law and privacy interests, that expand and refine the data available to the Federal Government to measure equity and capture the diversity of the American people.
- (d) OMB shall provide administrative support for the Data Working Group, consistent with applicable law.

**Sec. 10. Revocation.** (a) Executive Order 13950 of September 22, 2020 (Combating Race and Sex Stereotyping), is hereby revoked.

(b) The heads of agencies covered by Executive Order 13950 shall review and identify proposed and existing agency actions related to or arising from Executive Order 13950. The head of each agency shall, within 60 days of the date of this order, consider suspending, revising, or rescinding any such actions, including all agency actions to terminate or restrict contracts or grants pursuant to Executive Order 13950, as appropriate and consistent with applicable law.

(c) Executive Order 13958 of November 2, 2020 (Establishing the President's Advisory 1776 Commission), is hereby revoked.

**Sec. 11. General Provisions.** (a) Nothing in this order shall be construed to impair or otherwise affect:

(i) the authority granted by law to an executive department or agency, or the head thereof; or

(ii) the functions of the Director of the Office of Management and Budget relating to budgetary, administrative, or legislative proposals.

(b) This order shall be implemented consistent with applicable law and subject to the availability of appropriations.

(c) Independent agencies are strongly encouraged to comply with the provisions of this order.

(d) This order is not intended to, and does not, create any right or benefit, substantive or procedural, enforceable at law or in equity by any party against the United States, its departments, agencies, or entities, its officers, employees, or agents, or any other person.

JOSEPH R. BIDEN JR.

THE WHITE HOUSE,  
January 20, 2021.

# Addressing Health Equity through Improvement Activities

## Purpose of this Document

1. Provide the Centers for Medicare & Medicaid Services (CMS) with a list of existing improvement activities that can help clinicians address health equity.
2. Provide CMS with a range of options for new improvement activities and modifications of existing activities to better elevate goals of addressing equity within the improvement activities Inventory of the Merit-Based Incentive Program (MIPS), in light of federal priorities and an inquiry about drivers of health from the American College of Emergency Physicians (ACEP) and [The Health Initiative](#). The PIMMS team also provides recommendations for selecting from among the options presented, depending on the current needs and priorities of MIPS.

## Existing Improvement Activities that Address Equity

There are already multiple activities within the Performance Year 2021 Inventory that aim to address health equity. This section aims to provide an overview of the existing scope of health equity issues already covered in the Inventory.

### Description and List of Existing Activities Addressing Equity

Most of the subcategories in the Inventory have at least one activity that has an equity component. Each subcategory is discussed at a high level below. This list draws attention to specific sub-populations that are targeted within activities. Table 1 shows a detailed list of these activities.

- Achieving Health Equity (AHE) has five activities. Three of them address specific populations: dual eligible patients, small practices/those in rural/underserved areas, and low income/disabled populations. Another aims to help any/all populations facing disparities, while the last one supports improvement across all populations, with benefits particularly accruing to those who are underserved/vulnerable.
- Expanding Practice Access (EPA) activities can support underserved populations who face more and steeper barriers to access than others. EPA\_1, EPA\_2, and EPA\_3 are particularly relevant to equity issues.
- Population Management (PM) and Care Coordination (CC) subcategories contain multiple activities that focus on clinician-defined at-risk populations, including those defined by race/ethnicity, gender, etc. In addition, PM\_2 is an activity that focuses on Native Americans, Alaskan Natives, populations served by Rural Health Clinics, and Federally Qualified Health Centers.
- Beneficiary Engagement (BE) has three activities and Behavioral and Mental Health (BMH) one activity that call out underserved/vulnerable populations, including those with disabilities.



- Patient Safety and Practice Assessment (PSPA) has one activity (detailed below) that includes an option for using data to inform and implement quality improvement activities, which can provide insight into addressing inequity.

**Table 1. PY2021 Activities Addressing Equity in All Subcategories**

ID	Title	Equity objective and <u>target population</u>
*AHE_1	Engagement of New Medicaid Patients and Follow-up	Focus on improving health outcomes for <u><b>dually eligible patients</b></u> .
AHE_3	Promote Use of Patient-Reported Outcome Tools	Use PRO data as part of routine care, thus increasing patient engagement and health outcomes for <u><b>all populations (including those facing inequities)</b></u> .
*AHE_5	MIPS Eligible Clinician Leadership in Clinical Trials or community-based participatory research	Develop evidence-based tools, research, or processes for minimizing disparities in healthcare access, care quality, affordability, or outcomes. <u><b>All populations facing disparities</b></u>
AHE_6	Provide Education Opportunities for New Clinicians	Provide clinicians-in-training with diverse experiences, allowing them to gain deep understanding of the challenges facing eligible clinicians and patients in <u><b>small practices or in underserved or rural areas</b></u> .
AHE_7	Comprehensive Eye Exams	Improve eye health of <u><b>underserved and/or high-risk populations (especially, low income and disabled)</b></u> , and empower patients in these populations to become more educated consumers of eye care.
EPA_1	Provide 24/7 Access to MIPS Eligible Clinicians or Groups Who Have Real-Time Access to Patient's Medical Record	Increase patient access to eligible clinicians who work in an outpatient setting with the goal of reducing unnecessary emergency room visits. <u><b>All populations, with benefits accruing disproportionately to underserved groups; patients without sick leave</b></u>
EPA_2	Use of telehealth services that expand practice access	Increase use of telehealth services, thus removing geographic and time barriers to access, and use data from these services to implement quality improvement initiatives. <u><b>Rural residents; patients without sick leave; urban residents with transportation barriers</b></u>
EPA_3	Collection and use of patient experience and satisfaction data on access	Develop an improvement plan informed by patient experience and satisfaction data, including any differences across demographic groups, so that eligible clinicians can use data-driven approaches to improve patient access and quality of care. <u><b>Rural residents; patients without sick leave; urban residents with transportation barriers</b></u>
PM_3	RHC, IHS or FQHC Quality Improvement Activities	Improve quality of care and formal quality improvement and reporting for <u><b>Native Americans, Alaskan Natives, populations served by Rural Health Clinics (RHC), and Federally Qualified Health Centers (FQHC)</b></u> .
*PM_6	Use of toolsets or other resources to close healthcare disparities across communities	Decrease healthcare disparities and improve health status in underserved communities. <u><b>Targeted population defined by/relevant for MIPS clinician</b></u>



ID	Title	Equity objective and <u>target population</u>
PM_7	Use of QCDR for Feedback Reports that Incorporate Population Health	Increase knowledge of practice patterns and treatment outcomes to better serve patients, including vulnerable populations. <b><u>Vulnerable population defined by/relevant for MIPS clinician</u></b>
*PM_11	Regular review practices in place on targeted patient population needs	Improve understanding of targeted populations' unique needs in order to create tailored clinical treatments and better utilize community resources. <b><u>Targeted population defined by/relevant for MIPS clinician</u></b>
PM_14	Implementation of methodologies for improvements in longitudinal care management for high-risk patients	Improve health outcomes and patient-centeredness of care for patients at high-risk for adverse health outcomes or harm. <b><u>At-risk population defined by/relevant for MIPS clinician</u></b>
PM_19	Glycemic Screening Services	Screen more patients at risk for diabetes, with focus on at-risk populations. <b><u>At-risk population defined by/relevant for MIPS clinician</u></b>
PM_20	Glycemic Referring Services	Refer more patients with pre-diabetes to a recognized preventive program to help prevent or slow disease progression, with focus on at-risk populations. <b><u>At-risk population defined by/relevant for MIPS clinician</u></b>
CC_9	Implementation of Practices/Processes for Developing Regular Individual Care Plans	Develop, maintain, and share personalized care plans with at-risk patients to promote patient-centered care and improve patient experience. <b><u>An at-risk population defined by/relevant for MIPS clinician</u></b>
*CC_14	Practice improvements that engage community resources to support patient health goals	Practice improvements that engage community resources to support patient health goals <b><u>All populations, with benefits accruing disproportionately to underserved groups who have health-related social needs.</u></b>
*PSPA_18	Measurement and improvement at the practice and panel level	Enhance the measurement of the quality of care, making quality data relevant at practice and panel levels, and use those data to implement effective quality improvement activities. <b><u>Option to target specific, clinician-defined population(s)</u></b>
BMH_7	Implementation of Integrated Patient Centered Behavioral Health Model	Support patients with behavioral health needs and poorly controlled chronic illnesses through integrated behavioral health services and the use of evidence-based tools or other initiatives. <b><u>All populations, with benefits accruing disproportionately to underserved groups</u></b>
BE_1	Use of Certified EHR to Capture Patient Reported Outcomes	Improve patient engagement through patient/clinician review of patient collected information or through assessment of a patient's understanding, confidence, and ability to perform self-care. <b><u>All populations, with benefits accruing disproportionately to underserved groups</u></b>

ID	Title	Equity objective and <u>target population</u>
BE_5	Enhancements/regular updates to practice websites/tools that also include considerations for patients with cognitive disabilities	Ensure eligible clinicians' website content and tools more accessible to <u>people with disabilities</u> .
BE_7	Enhancements/Regular Updates to Practice Websites/Tools that also include Considerations for Patients with Cognitive Disabilities	Increase patient engagement through use of qualified clinical data registry (QCDR)'s tools for promoting positive patient behavior such as consistent exercise. <u>All populations, with benefits accruing disproportionately to underserved groups</u>

\*We have recommended modifications for these activities below.

## Data-Driven PY2021 Activities Addressing Equity

Of the activities listed in Table 1, three activities require use of data analysis, with data disaggregated by self-reported race, ethnicity, and gender. These activities are presented in Table 2. Please note that we recommend modifications for PSPA\_18 and PM\_6, which are the more robust of the three activities, in this document. The recommended modifications aim to better highlight the existing link to equity.

**Table 2. PY2021 Activities Addressing Equity with Data**

ID	Current Title	Current equity objective and use of data
*PSPA_18	Measurement and improvement at the practice and panel level	Enhance the measurement of the quality of care, making quality data relevant at practice and panel levels, and use those data to implement effective quality improvement activities. One option is to use data to set performance benchmarks and goals for specific populations (e.g., racial and ethnic minorities, individuals with disabilities, sexual and gender minorities, individuals with certain chronic conditions/risk factors, or individuals in rural areas) to drive overall improvements.
*PM_6	Use of Toolsets or other Resources to Close Healthcare Disparities across Communities	Decrease healthcare disparities and improve health status in underserved communities, using tools such as the Population Health Toolkit that allow MIPS clinicians to use tool-hosted data to better understand the inequities affecting their patient population. Clinicians selecting this activity can then define the specific underserved population(s) to address in a quality improvement activity.
EPA_2	Use of telehealth services that expand practice access	Increase use of telehealth services, thus removing geographic and time barriers to access, and use data from these services to implement quality improvement initiatives.

\*We have recommended modifications for these activities below (also flagged in Table 1).

## Idea for New Improvement Activities

### Create and implement an anti-racism plan for health equity

Background: This activity originates in the acknowledgement that it is insufficient to gather and analyze data by race, and document disparities by different population groups; and

acknowledge instead the importance of naming systemic racism as the root cause for differences in health outcomes between socially defined racial groups.<sup>1</sup>

Activity Name: Create and implement an anti-racism plan

Activity Description: Create and implement an anti-racism plan. The plan should include a clinic-wide review of existing tools and frameworks, from the clinic's higher-level policies, practices, and norms and value statements, to detailed clinical guidelines and electronic health record systems, to ensure that they include and are aligned with a commitment to anti-racism and an understanding of race as a political and social construct, not a physiological one. For example, a review might indicate that a clinician's office's existing website and Human Resources documents may not mention a commitment to anti-racism or awareness of racism in medicine; the review might also indicate that, within decision aids used in the practice, heart failure risk is lowered for individuals socially identified as Black, which may influence the level of care provided to them.<sup>2</sup> The plan should also identify ways in which issues and gaps identified in the review can be addressed and should include target goals and milestones for addressing prioritized issues and gaps. Clinicians can also consider completing training on anti-racism, including explicit and implicit biases within the clinician community and with patients; and historic and current details about health inequities relevant for your practice.

Weight: High

Evidence/Resources

- [Jones CP, 2018, Toward the Science and Practice of Anti-Racism: Launching a National Campaign Against Racism, Ethnicity and Disease, 28, 231-234](#)
- <https://www.nejm.org/doi/full/10.1056/NEJMms2004740>
- <https://www.healthaffairs.org/doi/10.1377/hblog20200820.931674/full/>

## Ideas for Modifying Existing Improvement Activities

As demonstrated in the previous section, some improvement activities already aim to improve equity. This section presents recommended modifications for six of these activities. In some cases, modifying an activity can more explicitly link it to health equity and—with regard to racial equity—to the naming of racism, without changing the core activity. In other cases, modifying an activity means fundamentally shifting the activity to focus on health equity specifically.

### Modification of AHE\_1

Title: Enhance engagement of Medicaid and Other Vulnerable Patients and Follow-up

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<sup>1</sup> [Jones CP, 2018, Toward the Science and Practice of Anti-Racism: Launching a National Campaign Against Racism, Ethnicity and Disease, 28, 231-234](#)

<sup>2</sup> <https://www.nejm.org/doi/full/10.1056/NEJMms2004740>

Proposed revised description [based on draft in Medical Officer Spreadsheet]: To improve responsiveness of care for Medicaid and other vulnerable patients, 1) use time-to-treat data to identify patterns in which sub-groups of Medicaid patients or other sub-groups of vulnerable patients for whom care or engagement has not achieved standard practice guidelines. With this information, create an approach for improvement, and implement the approach with monitoring for improvement; or 2) screen all Medicaid patients for transportation barriers related to getting to and from their medical appointments. Prepare an updated resource documenting links and/or information about the state's Medicaid non-emergency medical transportation benefit, which is nationally mandated. The resource must clearly indicate whether this benefit varies by Medicaid eligibility pathway. Provide this resource to those patients whose screening results indicate that they need this support.

Notes/Rationale:

- In original option, expanded target population to be Medicaid beneficiaries (i.e. dual eligibles) as well as other vulnerable populations.
- Created a separate option in this activity addressing demand-side barriers to providing Medicaid patients with timely care.
- MACPAC's report states: "In 2017, 2.1 million (or 4.4 percent) Medicaid enrollees under age 65 reported on the National Health Interview Survey that they had delayed care because of lack of transportation...Adults with Medicaid coverage are more likely than those with private coverage to delay care because of a lack of transportation (5.8 percent versus 0.7 percent).... About 42 percent of [Non-Emergency Medical Transportation] users were dually eligible for Medicaid and Medicare. Dually eligible beneficiaries are likely to rely on Medicaid for transportation services because Medicare only covers ground ambulance services for individuals whose medical condition at the time of transport prevents them from using other means of transportation without jeopardizing their health (GAO 2016a)."  
<https://www.macpac.gov/wp-content/uploads/2019/05/Medicaid-Coverage-of-Non-Emergency-Medical-Transportation.pdf>

Resource:

- <https://www.macpac.gov/subtopic/non-emergency-medical-transportation/>

## Modification for AHE\_5

Title: MIPS Eligible Clinician Leadership in Clinical Trials or community-based participatory research (CBPR)

Activity Description: MIPS eligible clinician leadership in clinical trials, research alliances or community-based participatory research (CBPR) that identify tools, research or processes that can focus on minimizing disparities in healthcare access, care quality, affordability, or outcomes, which could include addressing health related social needs like food insecurity, housing insecurity, transportation barriers, utility needs, and interpersonal safety.

Notes/Rationale for modification: Adding relatively simple text addition does not change the activity itself, but does help explicitly link the work with HRSN.

## Modification for PM\_6

Title: Use of toolsets or other resources to address healthcare inequities across communities

Activity Description: Take steps to address inequities in health outcomes by using tools such as Population Health Toolkit or other resources identified by CMS, the Learning and Action Network, Quality Innovation Network, or National Coordinating Center, to understand local

manifestations of health inequities and assess options for effective and relevant interventions. Based on this information, create and implement an action plan. Refer to the local Quality Improvement Organization (QIO) for additional steps to take for improving health status of communities, as there are many steps to select from for satisfying this activity. QIOs work under the direction of CMS to assist eligible clinicians and groups with quality improvement, and review quality concerns for the protection of beneficiaries and the Medicare Trust Fund.

Notes/Rationale for modification:

- Be more explicit about the focus on inequities
- Replace concept of “disparities” with one of “inequities” to link to structural challenges like racism that result in the differences.
- Be more explicit about what clinicians should learn from the use of the tools listed—specifically, that clinicians will first learn more about inequities in their patient populations or at least in the region, and then use that greater learning to be more thoughtful about addressing issues or gaps.

### **Modification for PM\_11**

Title: Regular review practices in place on targeted patient population needs

Activity Description: Implementation of regular reviews of targeted patient population needs, such as structured clinical case reviews, which includes access to reports that show unique characteristics of eligible clinician's patient population, identification of vulnerable patients, and how clinical treatment needs are being tailored, if necessary, to address unique needs and what resources in the community have been identified as additional resources. The review should consider how structural inequities, such as racism, are influencing patterns of care and consider changes to acknowledge and address them.

Notes/Rationale:

- The text addition adds a component to the review that was otherwise missing, drawing attention to the importance of/need to consider systemic racism throughout the health system.

### **Modification for CC\_14**

Title: Practice improvements that engage community resources to support patient health goals

Activity Description: Select and screen for the health related social needs (HRSN) that are relevant for your patient population through one of the following:

- Update a guide to available community resources annually, and provide it to patients who are found to be at risk in one or more HRSN area.
- Maintain formal (referral) links to key community resources and programs to strengthen the referral process.
- Record findings of screening and trigger follow-up within the Electronic Health Record (EHR); then analyze EHR data on patients with one or more HRSN need to identify and implement approaches to better serve their holistic needs through linkages with community resources.

HRSNs prioritized by your practice might include health-harming legal needs, which require both health and legal support to resolve, areas such as food and housing insecurity, or needs such as exercise, nutrition, or chronic-disease self-management.

Weight: High

Validation:

- List option of using z-codes in claims to demonstrate the completion and documentation of screening.

Notes/Rationale:

- The core content of CC\_14 is closely related to the idea of addressing drivers of health, because it is all about strengthening/leveraging community linkages to address root causes of poor health outcomes for vulnerable populations, including those who face racism.
- The rewrite does the following:
  - o Requires screening, entry into EHR, and one of three options for linking patients in need to community resources. This allows clinicians who choose this activity to fulfill a complete cycle of support for their patients in need of it. As a result, requirements for this activity increased from only one task in the original description to the equivalent of three tasks. Thus, we recommend also changing the weight for this activity to be high to reflect the additional effort required.
  - o Leaves optional the specific set of HRSNs that the clinician might choose to prioritize. It maintains examples that were previously mentioned in the activity, but adds to them reference to the AHC program list (which would be fully specified and linked to in the Validation information).
  - o Adds option for using EHR to record screening results, trigger follow-up and analyze data to better tailor approaches.
  - o Removes link to technological capabilities of connections to community resources and for the screening tools used. Many tools including the AHC screening tool are not IT-enabled, unless a clinician decides to make it so. Also, in many communities the resources/programs that might best provide social needs to patients in the community may not have the baseline technological capacity to engage with clinician groups in “bi-directional” ways beyond basic forms of communication like phone and email.
  - o Added as optional the use of z-codes to record results of the screening in claims using ICD-10.

Resources to include in Validation information:

Screening tools:

- <https://healthleadsusa.org/resources/the-health-leads-screening-toolkit/>
- <https://innovation.cms.gov/files/worksheets/ahcm-screeningtool.pdf>
- <https://www.nachc.org/research-and-data/prapare/>

## Modification for PSPA\_18

Title: Measurement and improvement at the practice and panel level



Activity Description: Measure and improve quality at the practice and panel level, such as the American Board of Orthopaedic Surgery (ABOS) Physician Scorecards, that could include one or more of the following:

- Regularly review measures of quality, utilization, patient satisfaction and other measures that may be useful at the practice level and at the level of the care team or MIPS eligible clinician or group (panel); and/or
- Use relevant data sources to create benchmarks and goals for performance at the practice level and panel level.

Clinicians can apply the measurement and quality improvement to address inequities in quality and outcomes for underserved and vulnerable populations, including those defined by race, ethnicity, and/or gender.

Validation:

Objective: Enhance the measurement of the quality of care, making quality data relevant at practice and panel levels, and use those data to implement effective quality improvement activities, including for underserved and vulnerable populations.

Validation Documentation: Evidence of quality measurement and improvement at the practice and panel level. Include one or more of the following elements:

- 1) Performance benchmarks and goals – Performance benchmarks and goals for populations at practice and panel levels, or for specific populations identified through self-report (e.g., racial and ethnic minorities, individuals with disabilities, sexual and gender minorities, individuals with certain chronic conditions/risk factors, or individuals in rural areas) to drive overall improvements; OR
- 2) Quality improvement program/plan at practice and panel level – Copy of a quality improvement program/plan or review of quality, utilization, patient satisfaction (surveys should be administered by a third-party survey administrator/vendor), and other measures to improve one or more elements of this activity; OR
- 3) Review of and progress on measures – Report showing progress on selected measures, including benchmarks and goals for performance using relevant data sources at the practice and panel level.

Notes/Rationale for modification:

- Be more explicit about the focus on inequities in both the activity description and the validation information.

## Recommendations

On March 9, 2021, CMS indicated interest in adopting the new activity “Create and implement an anti-racism plan,” and creating modifications for AHE\_1, CC\_14, PM\_11, PM\_6, and AHE\_5.

CMS also expressed interest in an activity that would involve gathering and analyzing quality data by sub-population and using findings of the analyses to inform improvement activities. This

process is covered well in PSPA\_18, which also is already equity-oriented. We recommend that CMS consider small modifications to existing activities to draw more attention to equity.

The PIMMS team notes that the ideas presented in this document are not comprehensive in addressing equity in health through improvement activities. For example, while the proposed new activity addresses racial inequity explicitly, there are other types of inequities and biases, such as those faced by people with disabilities or non-binary gender identities, whose needs are not yet addressed substantively in improvement activities. If CMS identifies other areas of equity to prioritize for CY2022 or future years, the PIMMS team can provide additional ideas supporting their implementation within the Inventory.

## Appendix: Definitions and Considerations

### Equity

The Biden Administration announced the priority it places on promoting racial equity in [the Executive Order On Advancing Racial Equity and Support for Underserved Communities Through the Federal Government](#), published January 20, 2021. This Executive Order defines equity as “the consistent and systematic fair, just, and impartial treatment of all individuals, including individuals who belong to underserved communities that have been denied such treatment, such as Black, Latino, and Indigenous and Native American persons, Asian Americans and Pacific Islanders and other persons of color; members of religious minorities; lesbian, gay, bisexual, transgender, and queer (LGBTQ+) persons; persons with disabilities; persons who live in rural areas; and persons otherwise adversely affected by persistent poverty or inequality.”

### Drivers of Health

Some of the ideas below seek to improve health equity by addressing “drivers of health,” where patients from underserved communities, including those whose health is negatively impacted by current and historical racism, will face risks that are linked to both worse health outcomes and higher health spending. In this document, the PIMMS team defines the “drivers of health” as the five core domains of health-related social needs (HRSN) in CMS’s Accountable Health Communities (AHC) program. These domains are: food insecurity, housing insecurity, transportation, utilities, and interpersonal safety. These domains meet the following criteria: “1) high-quality evidence exists linking the HRSN to poor health or increased health care utilization and cost; 2) the need can be met by community service providers; and 3) the need is not systemically addressed by health care providers.”<sup>3</sup> These criteria align with those for approving new activities. In addition to the five core domains, we note that the AHC framework also includes eight optional domains that could be areas of interest for new improvement activities: financial strain, employment, family, education, physical activity, substance use, mental health, and disabilities.

There are instances when a more flexible approach to HRSN better aligns with the core qualities of improvement activities. Improvement activities are intended to be relatively broad to give clinicians the flexibility to adapt them to their contexts—that is, to observe and refine the domains of interest to meet the relevant, addressable needs of their patient populations. Other important domains, such as health-related legal needs, are already referenced in activities.

### Considerations for new and modified activities related to HRSNs

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<sup>3</sup> <https://innovation.cms.gov/data-and-reports/2020/ahc-first-eval-rpt>



- The PIMMS team considered gaps in the Inventory relative to the domains of interest per above.
- The quality measures recommended by the Health Initiative incentivize the use of the AHC screening tool. A complementary improvement activity could then incentivize some action around that use, as long as it does not require significant unrecoverable costs – i.e., beyond what is typically required for a high-weighted activity.
- The PIMMS team has not recommended activities related to housing insecurity, utilities, or interpersonal violence, because available resources are largely local and not national, and thus would require a great deal of work (without additional support) to collate materials and effectively connect patients identified to be at risk to local resources.
- Some activities in the Inventory already aim to improve equity. Modifying them can more explicitly link the activity to health equity and—with regard to racial equity—to the naming of racism without changing the core activity. In other cases, modifying an activity means fundamentally shifting the activity to focus on health equity specifically.
- As directed by CMS, improvement activities should be relevant for a larger, rather than smaller, percentage of the Medicare population.

# TOWARD THE SCIENCE AND PRACTICE OF ANTI-RACISM: LAUNCHING A NATIONAL CAMPAIGN AGAINST RACISM

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doi:10.18865/ed.28.S1.231.

**Keywords:** Racism, Anti-Racism, National  
Campaign Against Racism

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because of this widespread denial of racism that we must launch a National Campaign Against Racism with three tasks: 1) naming racism; 2) asking “how is racism operating here?” and 3) organizing and strategizing to act. Following are brief descriptions of each of these tasks, including a framework for an Anti-Racism Collaborative as a platform for organizing our work going forward.

system and put in its place a system in which all people can know and develop to their full potentials.

My use of allegory to illustrate different aspects of “race” and racism has been effective in naming racism to people who have been raised in denial and taught not to see. My *Gardener’s Tale*<sup>6,7</sup> illustrates three levels of racism

## SETTING THE AGENDA FOR ANTI-RACISM

As president of the American Public Health Association (APHA) from 2015-2016, I launched a National Campaign Against Racism as a key agenda of my APHA presidency.<sup>1,2</sup> I set this agenda for the nation’s flagship professional society for public health practitioners and researchers because I identified racism as the root cause of “race”-associated differences in health outcomes.<sup>3</sup> We must now set this agenda for our nation. Although some in this country will acknowledge that racism is foundational in our nation’s history, many in this country are in denial about the continued existence of racism and its profound impacts on the health and well-being of the nation. Indeed, it is

## NAMING RACISM

Racism is a system of structuring opportunity and assigning value based on the social interpretation of how one looks (which is what we call “race”), that unfairly disadvantages some individuals and communities, unfairly advantages other individuals and communities, and saps the strength of the whole society through the waste of human resources.<sup>4,5</sup> This definition of racism as a system (rather than an individual character flaw, personal moral failing, or psychiatric illness) helps start conversations because we are no longer trying to divide the room into who is racist and who is not. By acknowledging that racism saps the strength of the whole society, we recognize that we all have “skin” in the game to dismantle this

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(institutionalized, personally mediated, and internalized) and strongly suggests that we must address institutionalized/structural racism if we are to set things right in our garden. The story also illustrates the importance of

## Launching a National Campaign Against Racism - Jones

addressing both how racism structures opportunity and how it assigns value. Even if we could compel the gardener in that allegory to enrich the poor, rocky soil until it was as rich as the rich, fertile soil, if she continues to prefer the red flowers over the pink flowers, she will continue to privilege red over pink going forward. This story highlights that we must address both the opportunity structures (differential access to the goods, services, and opportunities of society by “race”) and the value assignment (White supremacist ideology) in our anti-racism work.

Among my other published allegories, my Cliff Analogy<sup>8,9</sup> illustrates that to eliminate health disparities and achieve social justice, health interventions must address racism and other systems of structured inequity. My Japanese Lanterns<sup>10</sup> allegory illustrates how easy it is to be beguiled by the illusion of “race” as a fixed biological trait. My Dual Reality Restaurant Saga<sup>10,11</sup> illustrates how easy it is for those who are privileged by systems of structured inequity to be blind to the existence of those systems. My Conveyor Belt<sup>10,12</sup> allegory illustrates the three tasks of becoming actively anti-racist against the backdrop of societal indifference and complicity in racism.

### Asking “How Is Racism Operating Here?”

The mechanisms of racism are in our structures, policies, practices, norms, and values, which are different elements of decision-making.<sup>4</sup> Structures are the “who?”, “what?”, “when?”, and “where?” of decision-making; policies are the written “how?” of decision-making; practices and norms are the unwritten

“how?” of decision-making; and values are the “why?” In evaluating these mechanisms of racism, we need to be especially attentive to the “absence of.” Who is at the table, and who is not? What is on the agenda, and what is not? And when we note the “absence of,” we need to take action to fill in the gaps. We need to become vigilant in identifying and addressing inaction in the face of need.

Answering the question, “How is racism operating here?” can be a powerful approach to identifying levers for potential intervention. Following is a thought exercise asking, “How is racism operating here?” with regard to police killings of unarmed Black and Brown men and women. Structures: the presence or absence of Citizen Review Boards to hold police departments accountable. Policies: reliance on the Grand Jury system to bring indictments against police officers. Practices: the over-policing of communities of color, which causes more “accidental” interaction. Norms: the Blue Code of Silence, which constrains reporting of and punishment for police misconduct by other police officers. Values: the widely held societal view of Black men as inherently threatening, which leads to justifying the excessive use of force. Any one of these mechanisms could be a fruitful focus for action. Better yet, we could organize to address several of these mechanisms at the same time.

### Organizing and Strategizing to Act

During my term as president of APHA, I proposed an Anti-Racism Collaborative with eight Collective Action Teams as a structure for har-

nessing the wisdom and energy of anti-racism activists across the country and around the world. I envisioned much of the early work of the Anti-Racism Collaborative happening within social networking spaces, with later work extending into local geographies. I imagined the Anti-Racism Collaborative as the structure that would survive my presidency as APHA members and many other partners in communities across the country engaged in a sustained National Campaign against Racism.

Because the APHA social networking infrastructure was insufficient for hosting the Anti-Racism Collaborative, it was never launched by APHA. However, both the Center for the Study of Racism, Social Justice, and Health at UCLA<sup>13</sup> and the Social Medicine Consortium<sup>14</sup> have since embraced the National Campaign Against Racism as part of their work and are using the Anti-Racism Collaborative as a framework. Following are the initial guiding questions for each of the eight proposed Collective Action Teams:

1) Communication and Dissemination: How can we support the naming of racism in all public and private spaces? What tools and strategies are needed to start community conversations on racism?

2) Education and Development: How can we support the training of public health professionals and researchers around issues of “race,” racism, and anti-racism at educational institutions of all levels? How does an effective anti-racism curriculum look?

3) Global Matters: How can we use the International Convention on the Elimination of all forms

of Racial Discrimination<sup>15</sup> to support anti-racism work in the United States? What can we learn from anti-racism work in other nations?

4) History: What is the history of successful anti-racism struggle in the United States and around the world? How can this history guide our anti-racism work today? How can we institutionalize attention to history in all decision-making processes?

5) Liaison and Partnership: What anti-racism work is happening at the community level? What anti-racism work is happening in other sectors? How can we create linkages?

6) Organizational Excellence: How do we answer the question “How is racism operating here?” in each of our settings? How do we examine structures, policies, practices, norms, and values?

7) Policy and Legislation: What are current policy and legislative strategies to address and dismantle racism? What new strategies should we propose?

8) Science and Publications: What research has been done to examine the impacts of racism on the health and well-being of the nation and world? What intervention strategies have been evaluated? What are next steps?

Through this Anti-Racism Collaborative, we aim to develop the science and practice of anti-racism, a science and practice complementary to, but quite distinct from, the efforts to document the adverse impacts of racism on the health and well-being of the nation and world. The science and practice of anti-racism will equip us to anticipate and respond to resistance and roadblocks that are thrown up as progress toward social equity is being made.

## Barriers to Achieving Health Equity

Health equity has been defined as assurance of the conditions for optimal health for all people.<sup>15</sup> Achieving health equity requires valuing all individuals and populations equally, recognizing and rectifying historical injustices, and providing resources according to need.<sup>15</sup> Health disparities will be eliminated when health equity is achieved.<sup>15</sup>

In addition to economic and political barriers, there are at least three major cultural barriers to achieving

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health equity in the United States. The first cultural barrier is our narrow focus on the individual, which makes the systems and structures that drive inequities either invisible or irrelevant.<sup>4,16</sup> Self-interest becomes narrowly defined, sometimes not even encompassing extended family. There is a limited sense of inter-dependence and a limited sense of collective efficacy.

The second cultural barrier is our a-historical stance. The present is viewed as disconnected from

the past, and the current distribution of advantage and disadvantage is routinely viewed as happenstance despite the legacy of racism and its current manifestations.<sup>17</sup> Systems and structures are accepted as givens and treated as immutable.<sup>18</sup>

The third cultural barrier is our endorsement of the myth of meritocracy. This is the story-line that if you work hard in this country, you will make it. Certainly many (perhaps most) of the people who have made it in this country have worked hard. But there are many, many other people who are working just as hard or harder who will never make it in this country because, as research<sup>19</sup> has shown, an uneven playing field exists—one created and perpetuated by racism and other systems of structured inequity. Therefore, when we deny racism, we support the myth of meritocracy. And we can deny racism in at least two ways. We can say “I don’t believe that racism exists.” Or we can simply never say the word “racism.” When we refuse to say the word “racism” in the context of its widespread denial, we are complicit with that denial.

## One Last Thing: Treaty Obligations

The *International Convention on the Elimination of all Forms of Racial Discrimination*<sup>20</sup> is an international anti-racism treaty that was adopted by the United Nations General Assembly in 1965. It was signed by the United States in 1966. The US Senate ratified the treaty 28 years later in 1994. We have international treaty obligations to “do right” under this nine-page treaty.

One of our obligations is to sub-

## Launching a National Campaign Against Racism - Jones

mit periodic reports to the United Nations Committee on the Elimination of Racial Discrimination (UN CERD). The US Department of State submits reports roughly every six years, with the most recent report having been submitted in 2013.<sup>21</sup> The UN CERD reviewed this official US report, along with 82 parallel reports submitted by non-governmental organizations, and returned to the US government its Concluding Observations<sup>21</sup> in 2014. Among the Concerns and Recommendations expressed by the UN CERD were racial profiling (paras 8 and 18), residential segregation (para 13), the achievement gap in education (para 14), differential access to health care (para 15), and disproportionate incarceration (para 20).<sup>21</sup> In addition to recommendations in those areas, the UN CERD also “recommends that the State party adopt a national action plan to combat structural racial discrimination” (para 25).<sup>21</sup>

## CONCLUSION

So here we are, recognizing the importance of launching a National Campaign Against Racism, and now also recognizing the international mandate for our government to do so. But a successful struggle against racism will require strong efforts and effective organization outside of the government. I hope that the nascent efforts to launch a National Campaign Against Racism that I made during my APHA presidency will bloom with the continued support and involvement of the Center for the Study of Racism, Social Justice,

and Health at UCLA,<sup>13</sup> the Social Medicine Consortium,<sup>14</sup> and others. I hope that you, the reader, will get involved by naming racism, asking “How is racism operating here?”, and organizing and strategizing to act. We need all of us, with our wisdom, energy, passion, questions, and gifts. I am convinced that together, we can dismantle this system that structures opportunity and assigns value based on “race”,<sup>4,5</sup> and put in its place a system in which all people can know and develop to their full potentials. Let’s go!

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## MEDICINE AND SOCIETY

Debra Malina, Ph.D., Editor

**Hidden in Plain Sight — Reconsidering the Use of Race Correction in Clinical Algorithms**

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Physicians still lack consensus on the meaning of race. When the *Journal* took up the topic in 2003 with a debate about the role of race in medicine, one side argued that racial and ethnic categories reflected underlying population genetics and could be clinically useful.<sup>1</sup> Others held that any small benefit was outweighed by potential harms that arose from the long, rotten history of racism in medicine.<sup>2</sup> Weighing the two sides, the accompanying Perspective article concluded that though the concept of race was “fraught with sensitivities and fueled by past abuses and the potential for future abuses,” race-based medicine still had potential: “it seems unwise to abandon the practice of recording race when we have barely begun to understand the architecture of the human genome.”<sup>3</sup>

The next year, a randomized trial showed that a combination of hydralazine and isosorbide dinitrate reduced mortality due to heart failure among patients who identified themselves as black. The Food and Drug Administration granted a race-specific indication for that product, BiDil, in 2005.<sup>4</sup> Even though BiDil’s ultimate commercial failure cast doubt on race-based medicine, it did not lay the approach to rest. Prominent geneticists have repeatedly called on physicians to take race seriously,<sup>5,6</sup> while distinguished social scientists vehemently contest these calls.<sup>7,8</sup>

Our understanding of race and human genetics has advanced considerably since 2003, yet these insights have not led to clear guidelines on the use of race in medicine. The result is ongoing conflict between the latest insights from population genetics and the clinical implementation of race. For example, despite mounting evidence that race is not a reliable proxy for genetic difference, the belief that it is has become embedded, sometimes insidiously, within medical practice. One

subtle insertion of race into medicine involves diagnostic algorithms and practice guidelines that adjust or “correct” their outputs on the basis of a patient’s race or ethnicity. Physicians use these algorithms to individualize risk assessment and guide clinical decisions. By embedding race into the basic data and decisions of health care, these algorithms propagate race-based medicine. Many of these race-adjusted algorithms guide decisions in ways that may direct more attention or resources to white patients than to members of racial and ethnic minorities.

To illustrate the potential dangers of such practices, we have compiled a partial list of race-adjusted algorithms (Table 1). We explore several of them in detail here. Given their potential to perpetuate or even amplify race-based health inequities, they merit thorough scrutiny.

## CARDIOLOGY

The American Heart Association (AHA) Get with the Guidelines–Heart Failure Risk Score predicts the risk of death in patients admitted to the hospital.<sup>9</sup> It assigns three additional points to any patient identified as “nonblack,” thereby categorizing all black patients as being at lower risk. The AHA does not provide a rationale for this adjustment. Clinicians are advised to use this risk score to guide decisions about referral to cardiology and allocation of health care resources. Since “black” is equated with lower risk, following the guidelines could direct care away from black patients. A 2019 study found that race may influence decisions in heart-failure management, with measurable consequences: black and Latinx patients who presented to a Boston emergency department with heart failure were less likely than white patients to be admitted to the cardiology service.<sup>24</sup>

Cardiac surgeons also consider race. The Society of Thoracic Surgeons produces elaborate calculators to estimate the risk of death and other complications during surgery.<sup>10</sup> The calculators include race and ethnicity because of observed differences in surgical outcomes among racial and ethnic groups; the authors acknowledge that the mechanism underlying these differences is not known. An isolated coronary artery bypass in a low-risk white patient carries an estimated risk of death of 0.492%. Changing the race to “black/African American” increases the risk by nearly 20%, to 0.586%. Changing to any other race or ethnicity does not increase the estimated risk of death as compared with a white patient, but it does change the risk of renal failure, stroke, or prolonged ventilation. When used preoperatively to assess risk, these calculations could steer minority patients, deemed to be at higher risk, away from surgery.

#### NEPHROLOGY

Since it is cumbersome to measure kidney function directly, researchers have developed equations that determine the estimated glomerular filtration rate (eGFR) from an accessible measure, the serum creatinine level. These algorithms result in higher reported eGFR values (which suggest better kidney function) for anyone identified as black.<sup>11,25</sup> The algorithm developers justified these outcomes with evidence of higher average serum creatinine concentrations among black people than among white people. Explanations that have been given for this finding include the notion that black people release more creatinine into their blood at baseline, in part because they are reportedly more muscular.<sup>11,25</sup> Analyses have cast doubt on this claim,<sup>26</sup> but the “race-corrected” eGFR remains the standard. Proponents of the equations have acknowledged that race adjustment “is problematic because race is a social rather than a biological construct” but warn that ending race adjustment of eGFR might lead to overdiagnosis and overtreatment of black patients.<sup>27</sup> Conversely, race adjustments that yield higher estimates of kidney function in black patients might delay their referral for specialist care or transplantation and lead to worse outcomes, while black people already have higher rates of end-stage kidney disease and death due to kidney failure than the overall population.<sup>25</sup>

As long as uncertainty persists about the cause of racial differences in serum creatinine levels, we should favor practices that may alleviate health inequities over those that may exacerbate them.

Similar adjustment practices affect kidney transplantation. The Kidney Donor Risk Index (KDRI), implemented by the national Kidney Allocation System in 2014, uses donor characteristics, including race, to predict the risk that a kidney graft will fail.<sup>12</sup> The race adjustment is based on an empirical finding that black donors’ kidneys perform worse than nonblack donors’ kidneys, regardless of the recipient’s race.<sup>28</sup> The developers of the KDRI do not provide possible explanations for this difference.<sup>12</sup> If the potential donor is identified as black, the KDRI returns a higher risk of graft failure, marking the candidate as a less suitable donor. Meanwhile, black patients in the United States still have longer wait times for kidney transplants than nonblack patients.<sup>29</sup> Since black patients are more likely to receive kidneys from black donors, anything that reduces the likelihood of donation from black people could contribute to the wait-time disparity.<sup>29</sup> Use of the KDRI may do just that. Mindful of this limitation of the KDRI, some observers have proposed replacing “the vagaries associated with inclusion of a variable termed ‘race’” with a more specific, ancestry-associated risk factor, such as *APOL1* genotype.<sup>28</sup>

#### OBSTETRICS

The Vaginal Birth after Cesarean (VBAC) algorithm predicts the risk posed by a trial of labor for someone who has previously undergone cesarean section. It predicts a lower likelihood of success for anyone identified as African American or Hispanic.<sup>13</sup> The study used to produce the algorithm found that other variables, such as marital status and insurance type, also correlated with VBAC success.<sup>14</sup> Those variables, however, were not incorporated into the algorithm. The health benefits of successful vaginal deliveries are well known, including lower rates of surgical complications, faster recovery time, and fewer complications during subsequent pregnancies. Nonwhite U.S. women continue to have higher rates of cesarean section than white U.S. women. Use of a calculator that lowers the estimate of VBAC success for people of color could exacerbate these disparities. This dynamic is particularly

**Table 1. Examples of Race Correction in Clinical Medicine.\***

Tool and Clinical Utility	Input Variables	Use of Race	Equity Concern
<b>Cardiology</b>			
The American Heart Association's Get with the Guidelines–Heart Failure" ( <a href="https://www.mdcalc.com/gwtg-heart-failure-risk-score">https://www.mdcalc.com/gwtg-heart-failure-risk-score</a> )	Systolic blood pressure Blood urea nitrogen Sodium Age Heart rate History of COPD Race: black or nonblack	Adds 3 points to the risk score if the patient is identified as nonblack. This addition increases the estimated probability of death (higher scores predict higher mortality).	The original study envisioned using this score to "increase the use of recommended medical therapy in high-risk patients and reduce resource utilization in those at low risk." <sup>19</sup> The race correction regards black patients as lower risk and may raise the threshold for using clinical resources for black patients.
<i>Predicts in-hospital mortality in patients with acute heart failure. Clinicians are advised to use this risk stratification to guide decisions regarding initiating medical therapy.</i>			
<b>Cardiac surgery</b>			
The Society of Thoracic Surgeons Short Term Risk Calculator <sup>10</sup> ( <a href="http://riskcalc.sts.org/stswbriskcalc/calculate">http://riskcalc.sts.org/stswbriskcalc/calculate</a> )	Operation type Age and sex Race: black/African American, Asian, American Indian/Alaskan Native, Native Hawaiian/Pacific Islander, or "Hispanic, Latino or Spanish ethnicity"; white race is the default setting. BMI	The risk score for operative mortality and major complications increases (in some cases, by 20%) if a patient is identified as black. Identification as another non-white race or ethnicity does not increase the risk score for death, but it does change the risk score for major complications such as renal failure, stroke, and prolonged ventilation.	When used preoperatively to assess a patient's risk, these calculations could steer minority patients, deemed higher risk, away from these procedures.
<i>Calculates a patient's risks of complications and death with the most common cardiac surgeries. Considers &gt;60 variables, some of which are listed here.</i>			
<b>Nephrology</b>			
Estimated glomerular filtration rate (eGFR) MDRD and CKD-EPI equations <sup>11</sup> ( <a href="https://ukidney.com/nephrology-resources/egfr-calculator">https://ukidney.com/nephrology-resources/egfr-calculator</a> )	Serum creatinine Age and sex Race: black vs. white or other	The MDRD equation reports a higher eGFR (by a factor of 1.210) if the patient is identified as black. This adjustment is similar in magnitude to the correction for sex (0.742 if female).  The CKD-EPI equation (which included a larger number of black patients in the study population), proposes a more modest race correction (by a factor of 1.159) if the patient is identified as black. This correction is larger than the correction for sex (1.018 if female).	Both equations report higher eGFR values (given the same creatinine measurement) for patients identified as black, suggesting better kidney function. These higher eGFR values may delay referral to specialist care or listing for kidney transplantation.
<i>Estimates glomerular filtration rate on the basis of a measurement of serum creatinine.</i>			
Organ Procurement and Transplantation Network: Kidney Donor Risk Index (KDRI) <sup>12</sup> ( <a href="https://optn.transplant.hrsa.gov/resources/allocation-calculators/kdri-calculator/">https://optn.transplant.hrsa.gov/resources/allocation-calculators/kdri-calculator/</a> )	Age Hypertension, diabetes Serum creatinine level Cause of death (e.g., cerebrovascular accident) Donation after cardiac death Hepatitis C Height and weight HLA matching Cold ischemia En bloc transplantation Double kidney transplantation Race: African American	Increases the predicted risk of kidney graft failure if the potential donor is identified as African American (coefficient, 0.179), a risk adjustment intermediate between those for hypertension (0.126) and diabetes (0.130) and that for elevated creatinine (0.209–0.220).	Use of this tool may reduce the pool of African American kidney donors in the United States. Since African-American patients are more likely to receive kidneys from African-American donors, by reducing the pool of available kidneys, the KDRI could exacerbate this racial inequity in access to kidneys for transplantation.
<i>Estimates predicted risk of donor kidney graft failure, which is used to predict viability of potential kidney donor.<sup>†</sup></i>			



<b>Obstetrics</b>			
Vaginal Birth after Cesarean (VBAC) Risk Calculator <sup>13,14</sup> ( <a href="https://mfmunetwork.bsc.gwu.edu/PublicBSC/MFMU/VGBirthCalc/vagbirth.html">https://mfmunetwork.bsc.gwu.edu/PublicBSC/MFMU/VGBirthCalc/vagbirth.html</a> )	Age BMI Prior vaginal delivery Prior VBAC Recurring indication for cesarean section African-American race Hispanic ethnicity	The African-American and Hispanic correction factors subtract from the estimated success rate for any person identified as black or Hispanic. The decrement for black (0.671) or Hispanic (0.680) is almost as large as the benefit from prior vaginal delivery (0.888) or prior VBAC (1.003).	The VBAC score predicts a lower chance of success if the person is identified as black or Hispanic. These lower estimates may dissuade clinicians from offering trials of labor to people of color.
<i>Estimates the probability of successful vaginal birth after prior cesarean section. Clinicians can use this estimate to counsel people who have to decide whether to attempt a trial of labor rather than undergo a repeat cesarean section.</i>			
<b>Urology</b>			
STONE Score <sup>15,16</sup>	Sex Acute onset of pain Race: black or nonblack Nausea or vomiting Hematuria	Produces a score on a 13-point scale, with a higher score indicating a higher risk of a ureteral stone; 3 points are added for nonblack race. This adjustment is the same magnitude as for hematuria.	By systematically reporting lower risk for black patients than for all nonblack patients, this calculator may steer clinicians away from aggressive evaluations of black patients.
<i>Predicts the risk of a ureteral stone in patients who present with flank pain</i>			
Urinary tract infection (UTI) calculator <sup>17</sup> ( <a href="https://uticalc.pitt.edu/">https://uticalc.pitt.edu/</a> )	Age <12 months Maximum temperature >39°C Race: Describes self as black (fully or partially) Female or uncircumcised male Other fever source	Assigns a lower likelihood of UTI if the child is black (i.e., reports a roughly 2.5-times increased risk in patients who do not describe themselves as black).	By systematically reporting lower risk for black children than for all nonblack children, this calculator may deter clinicians from pursuing definitive diagnostic testing for black children presenting with symptoms of UTI.
<i>Estimates the risk of UTI in children 2–23 mo of age to guide decisions about when to pursue urine testing for definitive diagnosis</i>			
<b>Oncology</b>			
Rectal Cancer Survival Calculator <sup>18</sup> ( <a href="http://www3.mdanderson.org/app/medcalc/index.cfm?pagename=rectumcancer">http://www3.mdanderson.org/app/medcalc/index.cfm?pagename=rectumcancer</a> )	Age and sex Race: white, black, other Grade Stage Surgical history	White patients are assigned a regression coefficient of 1, with higher coefficients (depending on stage) assigned to black patients (1.18–1.72).	The calculator predicts that black patients will have shorter cancer-specific survival from rectal cancer than white patients. Clinicians might be more or less likely to offer interventions to patients with lower predicted survival rates.
<i>Estimates conditional survival 1–5 yr after diagnosis with rectal cancer</i>			
National Cancer Institute Breast Cancer Risk Assessment Tool ( <a href="https://bcrisktool.cancer.gov/calculator.html">https://bcrisktool.cancer.gov/calculator.html</a> )	Current age, age at menarche, and age at first live birth First-degree relatives with breast cancer Prior benign biopsies, atypical biopsies Race/ethnicity: white, African American, Hispanic/Latina, Asian American, American Indian/Alaska Native, unknown	The calculator returns lower risk estimates for women who are African American, Hispanic/Latina, or Asian American (e.g., Chinese).	Though the model is intended to help conceptualize risk and guide screening decisions, it may inappropriately discourage more aggressive screening among some groups of nonwhite women.
<i>Estimates 5-yr and lifetime risk of developing breast cancer, for women without prior history of breast cancer, DCIS, or LCIS.</i>			

**Table 1. (Continued.)**

Tool and Clinical Utility	Input Variables	Use of Race	Equity Concern
Breast Cancer Surveillance Consortium Risk Calculator <sup>19</sup> ( <a href="https://tools.bccsc-ccc.org/BCYearRisk/calculator.htm">https://tools.bccsc-ccc.org/BCYearRisk/calculator.htm</a> )  <i>Estimates 5- and 10-yr risk of developing breast cancer in women with no previous diagnosis of breast cancer, DCIS, prior breast augmentation, or prior mastectomy</i>	Age Race/ethnicity: white, black, Asian, Native American, other/multiple races, unknown BIRADS breast density score First-degree relative with breast cancer Pathology results from prior biopsies	The coefficients rank the race/ethnicity order of risk: white, American Indian, black, Hispanic, Asian.	Returns lower risk estimates for all nonwhite race/ethnicity categories, potentially reducing the likelihood of close surveillance in these patients.
<b>Endocrinology</b>  Osteoporosis Risk SCORE (Simple Calculated Osteoporosis Risk Estimation) <sup>20</sup> ( <a href="https://www.mdapp.co/osteoporosis-risk-score-calculator-316/">https://www.mdapp.co/osteoporosis-risk-score-calculator-316/</a> )  <i>Determines whether a woman is at low, moderate, or high risk for low bone density in order to guide decisions about screening with DXA scan</i>  Fracture Risk Assessment Tool (FRAX) <sup>21</sup> ( <a href="https://www.sheffield.ac.uk/FRAX/tool.aspx">https://www.sheffield.ac.uk/FRAX/tool.aspx</a> )  <i>Estimates 10-yr risk of a hip fracture or other major osteoporotic fracture on the basis of patient demographics and risk-factor profile. Calculators are country-specific.†</i>	Rheumatoid arthritis History of fracture Age Estrogen use Weight Race: black or not black  Age and sex Weight and height Previous fracture Parent who had a hip fracture Current smoking Glucocorticoid use Rheumatoid arthritis Secondary osteoporosis Alcohol use, $\geq 3$ drinks per day Femoral neck bone mineral density	Assigns 5 additional points (maximum score of 50, indicating highest risk) if the patient is identified as nonblack  The U.S. calculator returns a lower fracture risk if a female patient is identified as black (by a factor of 0.43), Asian (0.50), or Hispanic (0.53). Estimates are not provided for Native American patients or for multiracial patients.	By systematically lowering the estimated risk of osteoporosis in black patients, SCORE may discourage clinicians from pursuing further evaluation (e.g., DXA scan) in black patients, potentially delaying diagnosis and intervention.  The calculator reports 10-yr risk of major osteoporotic fracture for black women as less than half that for white women with identical risk factors. For Asian and Hispanic women, risk is estimated at about half that for white women. This lower risk reported for nonwhite women may delay intervention with osteoporosis therapy.
<b>Pulmonology</b>  Pulmonary-function tests <sup>22</sup>  <i>Uses spirometry to measure lung volume and the rate of flow through airways in order to diagnose and monitor pulmonary disease</i>	Age and sex Height Race/ethnicity	In the U.S., spirometers use correction factors for persons labeled as black (10–15%) or Asian (4–6%).	Inaccurate estimates of lung function may result in the misclassification of disease severity and impairment for racial/ethnic minorities (e.g., in asthma and COPD). <sup>23</sup>

\* BIRADS denotes Breast Imaging Reporting and Data System, BMI body-mass index (the weight in kilograms divided by the square of the height in meters), CKD-EPI Chronic Kidney Disease Epidemiology Collaboration, COPD chronic obstructive pulmonary disease, DCIS ductal carcinoma in situ, DXA dual-energy x-ray absorptiometry, LCIS lobular carcinoma in situ, and MDRD Modification of Diet in Renal Disease study.

† The current calculator uses Ethnicity/Race, with the following options: American Indian or Alaska Native, Asian, Black or African American, Hispanic/Latino, Native Hawaiian or Other Pacific Islander, White, and Multiracial.

‡ Three countries' calculators are further subcategorized by race, ethnicity, or location: China (Mainland China, Hong Kong), Singapore (Chinese, Malay, Indian), and the United States (Caucasian, black, Hispanic, Asian).

troubling because black people already have higher rates of maternal mortality.<sup>30</sup>

#### UROLOGY

The STONE score predicts the likelihood of kidney stones in patients who present to the emergency department with flank pain. The “origin/race” factor adds 3 points (of a possible 13) for a patient identified as “nonblack.”<sup>15</sup> By assigning a lower score to black patients, the STONE algorithm may steer clinicians away from thorough evaluation for kidney stones in black patients. The developers of the algorithm did not suggest why black patients would be less likely to have a kidney stone. An effort to externally validate the STONE score determined that the origin/race variable was not actually predictive of the risk of kidney stones.<sup>16</sup> In a parallel development, a new model for predicting urinary tract infection (UTI) in children similarly assigns lower risk to children identified as “fully or partially black.”<sup>17</sup> This tool echoes UTI testing guidelines released by the American Academy of Pediatrics in 2011 that were recently criticized for categorizing black children as low risk.<sup>31</sup>

#### ASSESSMENT

Similar examples can be found throughout medicine. Some algorithm developers offer no explanation of why racial or ethnic differences might exist. Others offer rationales, but when these are traced to their origins, they lead to outdated, suspect racial science or to biased data.<sup>22,30,31</sup> In the cases discussed here, researchers followed a defensible empirical logic. They examined data sets of clinical outcomes and patient characteristics and then performed regression analyses to identify which patient factors correlated significantly with the relevant outcomes. Since minority patients routinely have different health outcomes from white patients, race and ethnicity often correlated with the outcome of interest. Researchers then decided that it was appropriate — even essential — to adjust for race in their model.

These decisions are the crux of the problem. When compiling descriptive statistics, it may be appropriate to record data by race and ethnicity and to study their associations. But if race does appear to correlate with clinical outcomes, does

that justify its inclusion in diagnostic or predictive tools? The answer should depend on how race is understood to affect the outcome.<sup>30</sup> Arriving at such an understanding is not a simple matter: relationships between race and health reflect enmeshed social and biologic pathways.<sup>32</sup> Epidemiologists continue to debate how to responsibly make causal inferences based on race.<sup>33</sup> Given this complexity, it is insufficient to translate a data signal into a race adjustment without determining what race might represent in the particular context. Most race corrections implicitly, if not explicitly, operate on the assumption that genetic difference tracks reliably with race. If the empirical differences seen between racial groups were actually due to genetic differences, then race adjustment might be justified: different coefficients for different bodies.

Such situations, however, are exceedingly unlikely. Studies of the genetic structure of human populations continue to find more variation within racial groups than between them.<sup>34,35</sup> Moreover, the racial differences found in large data sets most likely often reflect effects of racism — that is, the experience of being black in America rather than being black itself — such as toxic stress and its physiological consequences.<sup>32</sup> In such cases, race adjustment would do nothing to address the cause of the disparity. Instead, if adjustments deter clinicians from offering clinical services to certain patients, they risk baking inequity into the system.

This risk was demonstrated in 2019 when researchers revealed algorithmic bias in medical artificial intelligence.<sup>36</sup> A widely used clinical tool took past health care costs into consideration in predicting clinical risk. Since the health care system has spent more money, on average, on white patients than on black patients, the tool returned higher risk scores for white patients than for black patients. These scores may well have led to more referrals for white patients to specialty services, perpetuating both spending discrepancies and race bias in health care.

A second problem arises from the ways in which racial and ethnic categories are operationalized. Clinicians and medical researchers typically use the categories recommended by the Office of Management and Budget: five races and two ethnicities. But these categories are unreliable proxies for genetic differences and fail to capture the complexity of patients’ racial and

ethnic backgrounds.<sup>34,35</sup> Race correction therefore forces clinicians into absurdly reductionistic exercises. For example, should a physician use a double correction in the VBAC calculator for a pregnant person from the Dominican Republic who identifies as black and Hispanic? Should eGFR be race-adjusted for a patient with a white mother and a black father? Guidelines are silent on such issues — an indication of their inadequacy.

Researchers are aware of this dangerous terrain. The Society of Thoracic Surgeons acknowledged concerns raised by clinicians and policymakers “that inclusion of SES factors in risk models may ‘adjust away’ disparities in quality of care.” Nonetheless, it proceeded to consider “all preoperative factors that are independently and significantly associated with outcomes”: “Race has an empiric association with outcomes and has the potential to confound the interpretation of a hospital’s outcomes, although we do not know the underlying mechanism (e.g., genetic factors, differential effectiveness of certain medications, rates of certain associated diseases such as diabetes and hypertension, and potentially [socioeconomic status] for some outcomes such as readmission).”<sup>10</sup> This decision reflects a default assumption in medicine: it is acceptable to use race adjustment even without understanding what race represents in a given context.

To be clear, we do not believe that physicians should ignore race. Doing so would blind us to the ways in which race and racism structure our society.<sup>37-39</sup> However, when clinicians insert race into their tools, they risk interpreting racial disparities as immutable facts rather than as injustices that require intervention. Researchers and clinicians must distinguish between the use of race in descriptive statistics, where it plays a vital role in epidemiologic analyses, and in prescriptive clinical guidelines, where it can exacerbate inequities.

This problem is not unique to medicine. The criminal justice system, for instance, uses recidivism-prediction tools to guide decisions about bond amounts and prison sentences. One tool, COMPAS (Correctional Offender Management Profiling for Alternative Sanctions), while not using race per se, uses many factors that correlate with race and returns higher risk scores for black defendants.<sup>40</sup> The tool’s creators explained that their design simply reflected empirical data.<sup>41</sup>

But if the underlying data reflect racist social structures, then their use in predictive tools cements racism into practice and policy. When these tools influence high-stakes decisions, whether in the clinic or the courtroom, they propagate inequity into our future.

In 2003, Kaplan and Bennet asked researchers to exercise caution when they invoked race in medical research: whenever researchers publish a finding based on race or ethnicity, they should follow seven guidelines, including justifying their use of race and ethnicity, describing how subjects were assigned to each category, and carefully considering other factors — especially socioeconomic status — that might affect the results.<sup>42</sup> We propose an adaptation of these guidelines to evaluate race correction in clinical settings. When developing or applying clinical algorithms, physicians should ask three questions: Is the need for race correction based on robust evidence and statistical analyses (e.g., with consideration of internal and external validity, potential confounders, and bias)? Is there a plausible causal mechanism for the racial difference that justifies the race correction? And would implementing this race correction relieve or exacerbate health inequities?

If doctors and clinical educators rigorously analyze algorithms that include race correction, they can judge, with fresh eyes, whether the use of race or ethnicity is appropriate. In many cases, this appraisal will require further research into the complex interactions among ancestry, race, racism, socioeconomic status, and environment. Much of the burden of this work falls on the researchers who propose race adjustment and on the institutions (e.g., professional societies, clinical laboratories) that endorse and implement clinical algorithms. But clinicians can be thoughtful and deliberate users. They can discern whether the correction is likely to relieve or exacerbate inequities. If the latter, then clinicians should examine whether the correction is warranted. Some tools, including eGFR and the VBAC calculator, have already been challenged; clinicians have advocated successfully for their institutions to remove the adjustment for race.<sup>43,44</sup> Other algorithms may succumb to similar scrutiny.<sup>45</sup> A full reckoning will require medical specialties to critically appraise their tools and revise them when indicated.

Our understanding of race has advanced considerably in the past two decades. The clinical



tools we use daily should reflect these new insights to remain scientifically rigorous. Equally important is the project of making medicine a more antiracist field.<sup>46</sup> This involves revisiting how clinicians conceptualize race to begin with. One step in this process is reconsidering race correction in order to ensure that our clinical practices do not perpetuate the very inequities we aim to repair.

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HEALTH AFFAIRS FOREFRONT

# Making Anti-Racism A Core Value In Academic Medicine

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Racism, and not race, is a social determinant of health, as leadership from the Ohio State University Wexner Medical Center and Health Sciences Colleges recently [declared](#). Acknowledging this is a foundation for structural and systemic change. Indeed, academic medical centers and health care organizations not acting to eliminate racism are perpetuating its proliferation. Within and outside our walls, we must build a culture of health that empowers populations that have historically been made vulnerable and uproots the manifestations of racism that appear in health care.

## Applying Anti-Racism To Our Own Systems First

As has been increasingly acknowledged, our nation is simultaneously experiencing two pandemics. The COVID-19 pandemic has led to [devastating](#) effects on communities of color impacted by disproportionately higher rates of disease, hospitalization, and death. The pandemic of racial injustice, a longstanding, persistent pandemic receiving more attention now due to high-profile cases of police and citizen brutality against Black people, is provoking the kind of outrage that creates space to elevate anti-racist platforms. For health care institutions and educators to effectively respond to both pandemics and their systematic causes, an anti-racism foundation is necessary, and anti-racism must become a core value.

First, however, we must do the important work of acknowledging and dismantling racism in our own systems—from maltreatment of Black patients to prejudice against Black colleagues, students, and trainees in research grants, admissions, promotion, rewards, compensation, and representation. Health care institutions and organizations need a culture shift to make anti-racism foundational to our core values and operations. This requires targeted education and engagement, funding, and new policies and practices, and must begin in health professions education, where we bear the responsibility of training the very clinicians who will treat maladies that are caused by and reinforce racial injustice.

## The Miseducation On “Social Determinants”

The list of ways in which our systems have caused Blackness to equate to sickness is long and egregious. We call these “social determinants of health”—which, in a sense, is a kind of softening and euphemizing of language that shields the genuine root causes of poor health. While social determinants play a significant role in shaping everyone’s health and overall well-being, in communities of color, social determinants often equate to disparity, and are, in many cases, institutional expressions of racism, oppression, sexism, injustice, and inequity. And yet we teach around these issues every day.

We teach students that infant mortality, for example, is [more than twice](#) as high in Black than White infants, but fail to underscore that racism is a toxic prenatal stress for Black mothers at every income and educational level. Trainees need to be taught about redlining and discriminatory practices that have made Black populations more vulnerable to poor living conditions, limited food options, inaccessibility to walkable space, lower-paying jobs, inadequate educational opportunity, violence, economic deprivation, mass incarceration, and substandard health care.

By omitting dialogue around the real causes of poor health, health professions education has proliferated potentially life-threatening social categorization of Black patients through scientifically unfounded teaching. It’s no wonder, then, that Black patients are [less likely](#) to have their symptoms and pains given serious credence, [less likely](#) to receive evidence-based diagnostic testing and treatment, and more likely to be mislabeled and stereotyped by health care professionals due to [implicit and explicit biases](#).

As medical professionals, we take an oath to do no harm. It is therefore our professional and ethical obligation to dismantle systems that have structurally been designed to harm. This does not mean talking around social determinants of health or talking about diversity; it means actively working against racism, by evaluating curricula, practices, training models, behaviors, and actions through a lens of anti-racism.

To this end, the Ohio State University Wexner Medical Center and Health Sciences Colleges have launched an [Anti-Racism Action Plan](#) and urgently call for other academic medical centers and health care serving institutions to follow suit. [Some organizations](#) are already moving in this direction; more must step up.

## The Anatomy Of Our Anti-Racism Agenda

Our Anti-Racism Action Plan consists of four key pillars, with concrete steps and action teams associated with each priority area, as well as an oversight committee reporting to the chancellor to ensure accountability. Below, we share some of the activities being undertaken.

### Elevate The Cause



The first pillar makes anti-racism foundational to enterprise efforts. The action teams focused on this pillar will work to raise awareness within and outside of our institution, focusing on educational and curricular reform, community engagement, and strategy.

One example of this work is the upcoming launch of our Roundtables On Actions Against Racism, to engage key stakeholders, including local and national experts, businesses, government agencies, community organizations, and individuals around action-oriented racism dialogues. The series will include facilitated discussions, policy recommendations, and dissemination of best practices. We are also auditing our curricula to ensure inclusion of the historical context of racism in health and health care, and a detailed understanding of social determinants of health. Lastly, we are reengineering and reforming our institution's policies and creating an accountability framework through comprehensive evaluation and scorecards to facilitate broader engagement and alignment on this critical work with the institution's strategic plan.

## Engage Stakeholders

As we raise awareness about the roots and impact of racism, we are making efforts to engage employees, faculty, staff, students, and other learners and stakeholders in tactical solutions and activities to confront and mitigate racism. We have initiated a series of cross-departmental, inter-college, anti-racism town halls and listening sessions, and have provided leaders with practical tools, such as racism dialogue toolkits and anti-racism training resources, to create open and safe spaces for action-oriented dialogue.

As a large academic health center, our stakeholders also include the communities we serve and the generations that will ultimately populate and lead our institutions. Therefore, we are expanding efforts to create pathways for excellence that reach deeper into the pipeline and further upstream to provide tools, mentoring, and resources for Black students from elementary school onward to aspire for and achieve goals in the health professions.

## Equip Communities, Employees, And Learners

We cannot drive an anti-racist agenda—nor expect others to do the same—without material support and resources. Our third pillar is about investing in scholarships, funding, training, toolkits, people, positions, and pathways that support anti-racism initiatives. The journey toward anti-racism should not be another [minority tax](#) on underrepresented groups within organizations. All faculty, students, and staff must work toward creating a culture of anti-racism within their institutions.

To do this effectively, we are educating our entire faculty, staff, students, and other learners, along with our communities, to equip them with the tools and resources they need to deliver on anti-racism goals, including but not limited to training on [implicit bias](#),

microaggressions, and discrimination. For example, all faculty, staff, students, and trainees will be required to participate in system-sponsored interactive workshops that incorporate a health equity perspective into clinical decision making. The costs of such programs will be borne by the institution, not the individuals, with resources dedicated to support staff and a dedicated project manager for anti-racism initiatives.

Recognizing that racism appears in many other sectors of society, including housing, employment, and education, we are committed to rectifying disparities through alignment with community partners and investing in housing and employment. Additionally, as health care delivery has shifted during the COVID-19 pandemic, with increased attention to digital health care, we are focused on initiatives to improve telehealth literacy and access, including advocating for affordable broadband for underserved communities and blunting the [digital divide](#) through activities such as building awareness of health risks and technology needs in partnership with community organizations and local libraries, as well as optimizing the use of community health workers.

## Empower Those Who Are Marginalized Or Oppressed

We recognize our own faults in allowing racism to fester in our learning environment, as well as our unique opportunity to empower those who have been marginalized or oppressed. Action groups focused on this pillar will ensure that we empower patients, communities, and employees with an anti-racist culture that encourages individuals to speak out against racism, invests in the voices of the unheard, and leads comprehensive evaluation efforts to demonstrate impact.

One example is the new Stop the Line initiative, modeled after the Toyota company's approach to risk mitigation and response that provides a safe environment for anyone to speak out if a problem is detected. When that happens, all production is halted. In health care, this has been critical as a lean strategy when applied to patient safety. We will leverage this framework as a zero-tolerance strategy to build a culture of trust, safety, and accountability on issues such as racism, bigotry, and discrimination. Such a model will empower all employees, learners, partners, and patients to Stop the Line as needed, and encourage and protect those reporting offensive, racist, sexist, discriminatory behaviors, actions, inactions, or comments.

An academic health center cannot be anti-racist without committing to meaningful advocacy and community investments. In addition to learning from and engaging communities, we aspire to be a place where marginalized groups feel welcome to advocate. To that end, we are using our position in one of the nation's largest cities and Ohio's state capital as a resource for community advocacy efforts, partnering with local, county, state, and national anti-racism efforts to align, elevate, and evaluate efforts with public health and community organizations focused on mitigating racism.

Some examples include launching an enterprisewide non-partisan voter registration campaign in concert with a community partner, as well as examining our vendor relationships and procurement policies through an anti-racist lens. We aim to use our social and financial capital to uplift and partner with Black and minority-owned businesses, other community partners, and organizations committed to social reform. Specifically, departments across the institution have been asked to support initiatives, companies, and vendors who empower Black and minority-owned businesses.

## Evaluation And Accountability Are Key

Our anti-racism plan functions on both the institutional and individual level, creating a continuous feedback loop that supports ongoing change and regular reflection on progress toward anti-racist policies, protocols, and reporting.

But these efforts cannot happen without rigorous, regular evaluation, transparency, and accountability. To accompany the action plan, we are developing an anti-racism scorecard and real-time tracking dashboard led by our analytics action group. The scorecard, for instance, will capture anti-racism targets that align with our goals in domains such as talent and culture, research, wellness, advancement, and clinical care. Maintaining a laser focus on goals and progress is important to motivate ongoing action, inspire redirection where needed, and create a climate of innovation around anti-racism activity.

## The Time For Action Is Now

Academic health centers are often regarded as sources of truth and leadership in the communities they serve. However, that status cannot be assumed; it must be earned and renewed. As we renew the social contract that academic health centers have with their students, learners, faculty, staff, patients, and communities, we must explicitly condemn racism. We cannot be content with teaching future health care professionals about caring for the downstream consequences of racism without addressing its upstream roots. We must challenge the very systems that have propagated racism and acknowledge that racism makes us all sicker. We call on all involved in health care to translate their anti-racist affirmations into their core values, which would then inspire actions that improve education, engagement, policies, practices, and funding within their organization and the lives of those they serve.